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··II CONTENTS II··

ASTP — JOHN R. CRAF — 399

Many readers of the "Journal" who are not engaged in any phase of the Army or Navy education program will be interested in the meaning of the letters A S T P and S T A R which have appeared on campuses throughout the country. An Associate Professor of Military Science and Tactics, Stanford University, here lists the qualifications needed for enrollment in these classifications and outlines the general assignment of the successful candidate's time.

SOCIAL STUDIES IN GENERAL EDUCATION — B. OTHANIEL SMITH — 404

This essay was one of a series of papers read by members of the staff of the University of Illinois at a conference held under the auspices of the Committee on the Status and Prospects of the Social Sciences, University of Illinois, during the spring of this year. Mr. Smith is an Associate Professor of Education.

CONCERNING PHILOSOPHICAL AND PROFESSORIAL CLARITY — 409
CHARLES F. SAWHILL VIRTUE

Mr. Virtue, Associate Professor of Philosophy, University of Louisville, has much to say in this short essay which is worthy of consideration by college teachers in any area of subject-matter.

"NEEDS" AND "SERVICES" — PETER A. CARMICHAEL — 413

Mr. Carmichael, Professor of Philosophy, Louisiana State University, sees the vocation-and-adjustment idea of education as a hindrance to the fulfillment of the services which the colleges profess to make.

THE FACULTY DOLLAR — ARTHUR H. WINAKOR — 421

Increased taxes, the urgent need of buying war bonds, and the climbing cost of living will combine to make this statement of the professor's dollar more realistic to the reader than statistical statements sometimes are. Mr. Winakor is Assistant Director of the Bureau of Institutional Research, University of Illinois.

DISINTERESTED CURIOSITY AND SOCIAL CONCERN — H. S. BROUDY — 426

The Director of Graduate Study in the State Teachers College, North Adams, Massachusetts, believes that the teacher of the humanities must impart more than knowledge to his students—he must awaken in them a social concern, a sense of moral responsibility for the best use of the technological advances of the postwar world.

[Continued on the Next Page]

CONTENTS (*Continued*)

A MEMORANDUM ON REGIONAL STUDIES — MORTIMER GRAVES — 431

The importance of regional studies in the Government's program of war and postwar education gives emphatic interest to this short article. Mr. Graves is Administrative Secretary of the American Council of Learned Societies.

TOWARD SCIENTIFIC HUMANISM — MORRIS GORAN — 435

The theme of this article is that science and humanism mutually interacting may afford a solution of the social confusion rampant in the world today. Mr. Goran is a resident of Chicago who has written for other magazines.

WITH THE TECHNICIANS — 439

Study of Contemporary Russian Civilization, reported by Ernest J. Simmons, Director, Intensive Study of Contemporary Russian Civilization, Cornell University; Secretarial Science in Colleges and Universities, reported by Sister Mary Gregoria, B.V.M., Mundelein College; The Effect of Year-Round Attendance on Students, reported by Francis P. Robinson, Ohio State University.

THE REPORTER — 444

"Training to Win" published by the University of Pittsburgh; summer radio institute held at Northwestern University; the function of philosophy in liberal education to be studied; new in-service course at School of Library Science, Drexel Institute of Technology; first course using radio program as a basic source of material at Columbia; new documents at the Library of the Wisconsin Historical Society; "Glossary of Library Terms" published; University of Wisconsin conducts salvage drive for surgical instruments; gifts to Wayne, Valparaiso, Oxford, and Cornell; prisoners of war earn university credit; American soldiers attend British universities; exchange of engineering knowledge among American countries; study of teacher-training program at University of Illinois; United States Government asked to consider postwar rehabilitation of foreign libraries; war transforms lives of British university students; Indiana University offers correspondence courses to men and women in armed services.

EDITORIAL COMMENTS — 448

REVIEWS — 451

"Twentieth Century Philosophy: Living Schools of Thought," edited by Dagobert D. Runes; "The Meaning of Intelligence," by George D. Stoddard; "Honorary Degrees: A Survey of Their Use and Abuse," by Stephen Edward Epler; "Dental Education in the United States," by John T. O'Rourke and Leroy M. S. Miner.

IN THE LAY MAGAZINES — v

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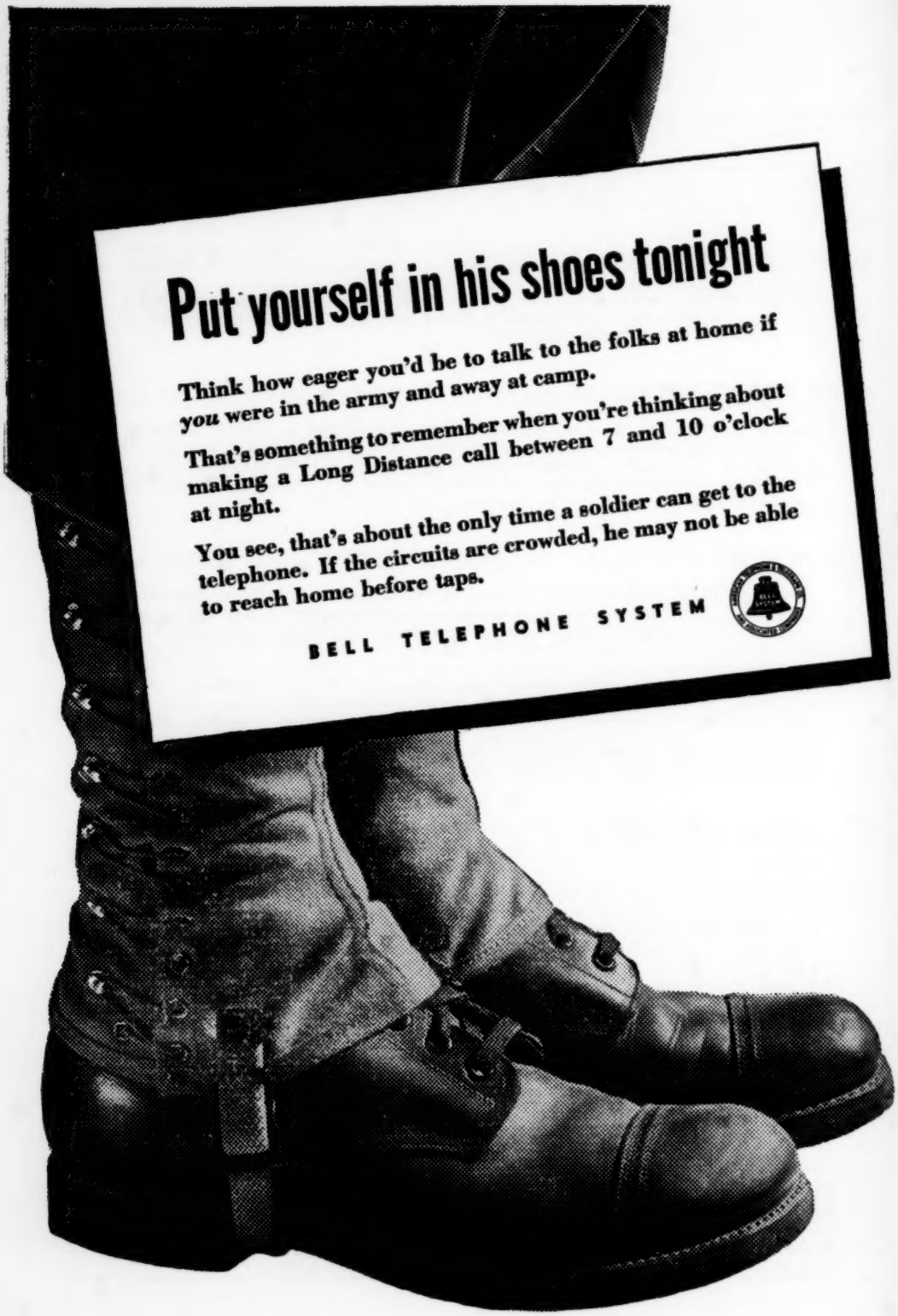
Put yourself in his shoes tonight
Think how eager you'd be to talk to the folks at home if *you* were in the army and away at camp.
That's something to remember when you're thinking about making a Long Distance call between 7 and 10 o'clock at night.
You see, that's about the only time a soldier can get to the telephone. If the circuits are crowded, he may not be able to reach home before taps.
BELL TELEPHONE SYSTEM

The Journal of Higher Education · NOVEMBER, 1943

ASTP

BY JOHN R. CRAF

An Outline of the Various Requirements for Candidacy

THE Army Specialized Training Program (ASTP) is under way. The American college or university campus has in many instances been transformed into a gigantic training camp almost overnight. The primary purpose of this transformation is to provide a continuous flow of specialized technicians to the Army; men who can be trained for specific tasks by the colleges and universities more rapidly and more efficiently than by the Army in training camps. The program is in reality an integral unit of the Army personnel-training program. The student soldiers are not students working for a degree but rather soldiers in uniform undergoing training to perform specialized military tasks. They are under military discipline. As soldiers, they are organized under the cadet system and receive instruction in military matters and physical education as well as in formal academic subjects.

With the lowering of the draft age to eighteen during 1942, the future of the youth of America became a responsibility of the Army and Navy. On August 19, 1942, the War Manpower Commission announced that "all able-bodied male students are destined for the armed forces. The responsibility for determining the specific training for such students is a function of the Army and Navy." Later the Secretary of War stated that

> the Army is greatly in need of men of specialized training particularly in physics, chemistry, engineering, and medicine. We are equally interested . . . in having adequate numbers of men of such training available to war production industries and the civilian research agencies of the Government.

The War Department, fully recognizing the possibility of extensive damage to its own training program in the event of a long war by withdrawal of young men from college, decided upon utilizing the colleges to train soldiers. Colonel Henry

Beukema was called to Washington from West Point and has been in charge of the development of the program. The American Council on Education has ably assisted the War Department through the formation of panels of persons who are competent to advise the military authorities in the character and content of courses in the numerous subject-matter fields.

By early 1943 the Army Specialized Training Program, a most comprehensive and co-ordinated program, was inaugurated. Contracting officers, commissioned personnel, representing the military arranged with several hundred colleges and universities for the use of facilities on a definite rental basis. Arrangements were made with the colleges and universities to utilize the civilian faculties for the academic instruction, and all matters concerning discipline, control of troops, and similar matters were placed in the hands of military personnel. At those colleges and universities where a unit of the Reserve Officers Training Course is located, the military personnel assigned thereto assumed the responsibility for military aspects of the Army Specialized Training Program. The professor of military science and tactics of the Reserve Officers Training Course was assigned the duty of commandant of cadets, and other officers were delegated duties for which their training qualified them.

TWO distinct types of units have been established in connection with the Army Specialized Training Program. First, there is the Army Specialized Training Assignment and Reclassification Unit commonly referred to as the STAR unit. These are in reality reception centers, for army personnel assigned to a STAR unit are housed and fed temporarily at a particular university or college while being tested. Second, there are the Army Specialized Training Units at which academic instruction is conducted.

The entire program functions in this manner. On and after July 1, 1943, a soldier must have completed his basic training as the first step toward eligibility for the Army Specialized Training Program. He must have obtained a score of at least 115 in the Army General Classification Test; a test which is administered to all men entering the armed forces through Selective Service.

After filling out in triplicate a personal data and interview form which is obtained through his commanding officer, the soldier is called before an Army Specialized Training Program Field Selection Board for a personal interview. The following men are, however, not eligible to participate in the program: men in units alerted for overseas, men destined for immediate shipment as overseas replacements, men who have qualified for Aviation Cadet Training, selected officer candidates, and accepted officer candidates unless they have expressed a preference for the Army Specialized Training Program after acceptance for an Officer Candidate School.

Before any candidate can be definitely selected for the Army Specialized Training Program and sent to a

STAR unit he must pass the OCT-2, X-3 test required of all prospective students with a score of 110 or better, although in rare instances a candidate who has scored less than 110 is accepted. This Army Specialized Training Division test is a specific measure of ability to perform Army specialized training work. Devised by educational experts of the Army after consultation with the United States Office of Education, it is administered to each applicant prior to his appearance before the Field Selection Board.

Briefly summarized, candidates for selection must have the following qualifications: all candidates must have a score of 115 or better on the Army General Classification Test, and the candidate must be definitely interested in participating in the Army Specialized Training Program.

Additional requirements for the candidate who has not passed his twenty-second birthday are:

1. If he is a high-school graduate or the equivalent, or has been admitted to college before high-school graduation and has successfully completed one semester or quarter of college work, he is eligible.
2. If the candidate has had more than a high-school education but not more than two years in college, he is eligible; no courses specified.
3. If the candidate has had more than two years of college but less than three years, he is eligible provided his college work has included one year of mathematics or one year of physics, or if he speaks fluently or fairly well at least one modern foreign language.
4. If the candidate has had three years or more of college or is a college graduate, he is eligible if his college work has included one year of physics and one year of mathematics or a major in physics or a major in chemistry or a major in engineering, or if he speaks fluently or fairly well at least one modern foreign language.
5. Additional eligibility rules govern admission to basic terms: at least two years of high-school mathematics including one year of algebra for the men with an AGCT score of 115 to 119 inclusive; at least one and one-half years of high-school mathematics including one year of algebra for the man with a score of 120 to 124 inclusive; at least one year of high-school algebra for the man with a score of 125 or better.

The additional requirements for the candidate who has passed his twenty-second birthday are:

1. He is eligible only for an advanced curriculum and is not eligible for Terms 1, 2, or 3 of the basic curriculum.
2. He is eligible only if he has had at least one year of college.
3. If he has had at least one year of college or two or three years of college, he is eligible provided his college work has included one year of physics and one year of mathematics or a major in mathematics or in physics or in engineering, or if he speaks fluently or fairly well at least one modern foreign language.
4. If the candidate has had more than three years of college or is a college graduate, he is eligible if he has majored in college in mathematics, physics, chemistry, or engineering, or if he speaks fluently or fairly well at least one modern foreign language.

If the applicant after preliminary tests and interview is found qualified, he is ordered to a college or university at which there is established an Army Specialized Training

Assignment and Reclassification Unit known as a STAR unit. Here, as previously indicated, the applicant for attendance in the Army Specialized Training Program is housed, fed, administered additional tests, and receives further interviews. He may spend from three to thirty days at a STAR unit. Each case is considered individually, and each soldier personally appears before an interviewing board. If on the basis of tests and interviews the soldier is found qualified, he is then assigned to a specific course of study in the highest term for which he is qualified.

Soldiers sent to STAR units and who are unable to qualify are returned to troop units, without prejudice or loss of their noncommissioned rating, and in many instances to their original units. Those who pass are moved as one group from STAR units to colleges and universities to begin their intensive study in an Army Specialized Training Unit.

The trainee is permitted to express a preference for a particular college or university, but there is no assurance that his request will be granted.

Once assigned to an Army Specialized Training Unit to begin study in either the basic or advanced phase of one of several curriculums, the trainee's life is as demanding and strenuous as life in an army camp. A typical work week for the Army Specialized trainee consists of 5 hours of military instruction, 6 hours of physical instruction, 24 hours of academic instruction, and 24 hours of supervised instruction.

Whether a soldier is assigned to study medicine, dentistry, veterinary work, area and language study, psychology, or civil, chemical, electrical, or mechanical engineering, he will be constantly busy. His daily schedule will call for the following activities—army time is shown in the parenthesis:

Reveille	6:30 A.M. (0630)
Breakfast	7:00 A.M. (0700)
Classes	8:00 A.M to M. (0800 to 1200)
Dinner	12:15 P.M. (1215)
Classes	1:20 P.M. to 4:00 P.M. (1320–1600)
Athletics	4:15 P.M. to 5:15 P.M. (1615–1715)
Supper	6:15 P.M. (1815)
Study	7:40 to 9:40 P.M. (1940–2140)
Lights out (Taps)	10:30 P.M. (2230)

The intensive program permits little time for formal athletic programs and the Army authorities have specifically ruled that trainees of the Army Specialized Training Program will not participate in intercollegiate athletics. The Navy on the other hand has permitted students in the V programs to engage in college athletics as the V program is not as intensive as the ASTP, though equally as difficult. Courses are arranged in quarters of twelve-weeks duration with one week between quarters. The gap between quarters permits academic instructors to turn in marks and the students to obtain well-earned furloughs.

Soldiers assigned to the advanced phases of the program may retain any noncommissioned rating held. Soldiers who are assigned to a basic phase are reduced without prejudice to the grade of private (grade VII). If a soldier advances from a basic to an advanced phase of the ASTP, he is promoted to private first class.

THE success of the Army Specialized Training Program is already assured. The plan has been in operation for several months and the col-

leges and universities are providing to thousands of soldiers the technical and mechanical training so essential for success in modern warfare.

From the beginning there has been exemplary co-operation between the military and civilian personnel. Educators have given generously of their time and effort and have worked constantly to ensure success of the program.

The program has provided a means for soldiers to continue their education and yet to prepare to render invaluable service to the nation. Since all of the academic work is on the college level, it is now assured that credits toward a degree will be granted if the soldier returns to college after the war. The Army Specialized Training Program Advisory Committee which is comprised of presidents of a number of leading colleges and universities was largely instrumental in obtaining the necessary approval from the colleges and universities in this matter. It is anticipated that colleges and universities participating in the program will arrange for soldiers returning to their campuses after the war to qualify as civilian students for degrees by taking special courses to round out their education.

Social Studies in General Education

By B. OTHANIEL SMITH

Their Nature and Means of Implementing Their Use in a Scheme of General Education

THE first and perhaps most fundamental purpose of social education is the development of common social directions. The fact that we are today suffering from widespread confusion and conflict about values—the ends to be served—is so well documented by students of society that it can no longer be seriously challenged. With the development of science and technology the activities of men have become more and more finely differentiated. The system of common values which comprised the basis of social judgment in the earlier years of our nation is now rapidly dissolving in the acids of specialization. Social perspectives are becoming highly specialized and partial. Men tend to see problems, facts, and values from the standpoints of their fragmented social outlooks. Their specialized minds are but fragments compared to the mind required by the total community life. At the same time, however, men are increasingly interdependent, even if only in a mechanical sense, in the processes by which they carry on the activities essential to their material welfare. Thus arises the paradoxical situation of a society composed of persons whose specialized behavior has widespread social consequences and yet whose sense of values and social directions and whose patterns of thought are highly differentiated, conflicting, and confused.

Moreover, social problems involve relations among persons—among their interests, attitudes, conceptions, and modes of thinking. Solutions to these problems, hence, require the reconstruction of the characters of the persons involved in the problems to the end that mutual purposes and some measure of common social orientation are attained as a basis of social action. This fact means that the people, at least the people of a democracy, are themselves inextricably involved in social problems. They are not only factors in the problems, but, furthermore, the resolutions of the problems and the reconstruction of the ideas and characters of individuals must proceed simultaneously and reciprocally.

We often believe that students come to us empty-headed. On the contrary, their minds are literally filled with incompatible social beliefs and ideals that have been deposited in the common sense of the people from various historical periods. These

notions and ideals, uncritically and even unconsciously held, are the ones which actually function in the social judgments and actions of our students. Instruction too often overlays them with a technical vocabulary and with verbal facility in the principles of the social sciences, leaving the original uncritical notions and ideals in actual control of the individual's behavior. If such an educational abortion is to be avoided, the work in social education must seek to make students aware of their own ideas, social prejudices, and points of view and to help them to evaluate and to reconstruct these commonsense notions and social outlooks. This, may I add in all humility, is a task which the college staff must do for itself no less than for the students.

IF THIS analysis is correct, one of the first tasks of social education should be to help students to discover the various social perspectives now operating and to seek for an integration of perspectives when these emerge in social conflicts and issues; but always with the view to helping the students and the instructors to build more inclusive and more satisfactory social outlooks as a basis of common social judgment and action. The ultimate goal is a system of basic values co-operatively built and generally understood and held, though not uncritically, by all persons regardless of occupation, race, religion, or social position.

A second need is for sensitiveness to and a clear understanding of the crucial social problems which this and the coming generation cannot escape. The advancement of science and technology not only breeds specialized social outlooks but also necessitates changes in social ideas, institutions, and practices. Old institutional forms and social practices which emerged in earlier conditions must be changed as new conditions render them inadequate. These changes set the fundamental social problems in which all persons are unavoidably concerned. The controversies involved in efforts to keep production and consumption balanced at a high level, to extend adequate medical care to all persons, to expand educational opportunities to the entire population, to conserve human and natural resources, to work out the proper controls and directives of economic activities, to extend democracy into all human relationships are but a sampling of the issues an understanding of which is incumbent upon all persons as citizens.

This does not mean that the citizen will understand, nor indeed that he needs to understand, these problems to the same extent as does the expert. But it does mean that he must know what the problems are, he must understand the values at stake, have an adequate set of social conceptions, grasp the significant facts, be able to ascertain who will benefit from proposed solutions, and understand social strategy knowing when it is democratic and when it is not. Citizens cannot turn over the solution of social problems solely to experts, no matter how good the intentions of the experts, without yielding the right to determine the

course of their lives. Such a procedure would in the long run reduce the welfare of the people to the wishes of the experts whose benevolence is likely to be no greater than that of any other arbitrary rulers. For social problems necessarily involve questions of ends as well as of means, and in a democracy participation in the determination of ends is the prerogative and duty of all citizens. It follows that the effectiveness of the research expert and of the social technologist is no less dependent upon the general state of public understanding than the public welfare is dependent upon the services of the expert. A careful study of social problems, national and international, ought therefore to be a part of a program of social education.

From the notion that students should study social problems with the view to becoming responsible and intelligent members of society, it follows that they should be disciplined in effective methods of thinking about and resolving social issues and conflicts. Moreover, as citizens, individuals are necessarily called upon to deal with social problems which arise in the community or in the society at large. Such problems always reflect differences and conflicts among the members of the community. These differences may be about values. They may be about the means to be used in attaining ends on which there is agreement. They may be about the facts of the situation. For each of these points of conflict there are appropriate procedures for its resolution and all students should be disciplined in them.

WHAT program of courses will best attain these purposes? To answer this question would require co-operative study and planning by a competent staff. It is not indefensible to suggest a program for discussion and further study.

It must be recognized at the outset that these purposes cannot be realized in less than 15 to 20 semester-hours of course work. We cannot play at the business of social education and attain results. I suggest three courses: a course in the origin and development of the democratic ideology, a course in crucial social problems, and a course in methods of social thinking.

The content of the course in the origin and development of the democratic ideology should be primarily normative. The values to be critically studied are found in the literature of the democratic tradition. The primary purpose should be to understand and to rebuild these values and to help the students learn to use them in making social judgments. This requires that the course explore the origins of our basic social ideals. Not only would the origins of the values be studied, but also the way in which they have been interpreted by various social groups to meet the demands of new conditions created by industrial and economic changes would be considered. Moreover, attention would be given to some of the competing ideologies which have arisen to challenge our value system, and the evidence for and against these various systems, including our own, would be studied critically. In short, the course should be an intellectual and social history

of democratic values and institutions in the modern period.

The second course, for which the intellectual history of democracy is a foundation, should be built around social problems treated at the local, national, and world levels. These problems should be studied primarily as social issues and conflicts involving competing individual and group perspectives. As an example, let us consider the problem of providing better housing. Some of the factors involved in solving this problem would be man power, materials, technical knowledge and skills, and the dispositions of persons. It seems clear that any adequate study of the situation will disclose that we have the man power, materials, and technical knowledge and skills to improve housing conditions immeasurably. Although we still need such developments, they are not the obstacles which prevent the construction of better houses, since we have far more of these commodities than we use. It is primarily the dispositions of persons which prevent the use of them in the development of a housing program. All sorts of individual and group interests, prejudices, and opinions are awakened every time a move is made in the direction of better living conditions. These come into conflict, and, in the absence of a common value orientation and of discipline in intellectual methods of dealing with such conflicts, action is too often precluded. Since the character of a person is always expressed in his social judgments and actions, conflicting personal structures are at the very heart of every social problem in a highly fragmented culture such as the one in which we live. If this be true, the study of social problems must begin with conflicting interests and values and aim at rebuilding them in the search for more inclusive perspectives within which social action can proceed.

Nothing that has been said should be taken to mean that facts and conceptions would be minimized or reduced. Instead, they would be used more than ever. For as points of view and social ideas and beliefs are examined and reconstructed and as the probable consequences of proposed courses of action are recognized and evaluated, many facts and principles will be used from an extensive range of subjects—anthropology, sociology, economics, history, education, psychology, biology, political science, philosophy, and geography. In the study of these problems, therefore, values, facts, and conceptions would be integrated in the mind of the student and learned in a context in which the student's own points of view and interests are vitally involved.

The third course, though not necessarily the third in point of study, should attempt to make students conscious of the fact that they have habits of thinking and that these habits can be improved by consciously trying to do so. And, furthermore, a deliberate effort should be made to wipe out the poor habits and to replace them by more effective ones. This much should be required even of high-school pupils, not to mention college students, as a condition of effective participation in social affairs. Today when deliberate efforts on a

world-wide scale and through all the avenues of communication are being made to control people through the manipulation of symbols and through irrational arguments, a study of one's own thinking and that of others from the standpoint of logic, language, and psychology as a part of an adequate program of social education should no longer be denied. I am, of course, not suggesting that we attempt to make students into logicians, nor am I proposing a course in formal logic. But surely it is not too much to ask that the student learn to avoid common errors of thought and of social judgment and to recognize these errors when they occur in the thinking of other people.

The instructional material used in the course should be social in character. It might be taken from newspapers, magazines, public addresses, and books on current social issues and conflicts. In studying the materials, stress should be laid, for example, upon the ability to tease out the position taken by a writer or speaker and to withhold criticism until this has been done, to look for assumptions underlying the position, to search out implications, both good and bad, to distinguish inference and judgment from observations, to look for the values at stake in the position, and to do many other intellectual activities required in sound thinking.

TURNING now from the program of social education to the difficulties of working out a program of any sort, I should like to make one observation which is little more than a deduction from the earlier part of my discussion. Changing an educational program, or indeed any part of an institution, is not primarily a matter of changing instructional materials, schedules, course hours, or even the organization of courses, although these things are of necessity involved. But it is primarily a matter of changing the characters of the members of the staff and modifying the expectations of the students. As university instructors we are highly specialized creatures, possessing not only specialized knowledge but also the prejudices and fragmented perspectives peculiar to our trade as well as those commonsense notions which we have absorbed in our nonspecialized activities. All these prejudices, perspectives, and notions influence in one way or another what we think and do about education. If a program of social education is to be worked out, therefore, it will be necessary for us to rebuild ourselves as we rebuild the program. We cannot remain as we are and provide an adequate program of social education.

In no less degree must the expectations of the students be changed. They have been taught, by the very nature of their prior school careers, to expect certain things in courses. Many of them no doubt would be shocked to find that they were in courses which made social values central, which require that they think critically and that they learn to think better.

Concerning Philosophical and Professorial Clarity

By CHARLES F. SAWHILL VIRTUE

Of Considerable Interest to Teachers of Any Subject

CLARITY is indeed an admirable trait in a teacher, a textbook writer, a philosopher, or a student, for without clarity there is blundering and loss. Clarity results from keen insight into first principles, consistency in point of view, grasp of relationships, sense of direction, aptness of illustrative data, and constant check upon details in the light of major features of the whole. When any of these factors is neglected, obscurity results.

Though clarity is an essential trait of effective thinking, it does not follow that all thought has the same kind of clarity or that clarity is the only desideratum of intellectual work. A great idea dimly seen or only partially understood is not obviously of less worth than a trivial commonplace clearly apprehended. Is the idea of democracy valuable primarily because of its clarity or because of its depth and fertility? We need desperately to be more clear than we are about democracy, but even more desperately we need to sense its unplumbed depths and to keep alive faith in its unexplored possibilities.

To hold that clarity is not the final criterion of the worth of an idea is not to advocate obscurantism nor to encourage slovenliness. Obscurantism is the deliberate preference for obscurity for the sake of aesthetic or other values of expression. Slovenliness, carelessness, inadequate grasp of relationships, satisfaction with partial implications—these are intellectual sins that have no place whatever in the academic enterprise.

It is the business of all education, and pre-eminently the business of philosophy, to grasp those first principles that illuminate the general pattern of events. A first principle is one from which other principles follow. In actual practice, the first principles of any disciplines are—whether or not they are first in an Aristotelian sense—those principles that are co-extensive with that discipline.

In the academic enterprise there are two ways of achieving clarity. The first way is to grasp first principles so illuminating—so self-evident when they are really seen—that the general pattern inevitably follows. The second way is to impose a pattern upon data by selecting those features which are easily related and ignoring any data which are embar-

rassing because they do not fit into the imposed scheme. Academic practice is a combination of—and inevitably a compromise between—these two modes of achieving clarity.

Since textbook writers must write for the greatest number of students, the clarity of a textbook in philosophy is mainly attained in the second way. In logic, for example, there is an abundance of traditional material that may be treated in a variety of ways. The textbook writer may select his data and treat it with such precision and systematic coherence that he creates the illusion in the student—and even in the professorial—mind that he has actually been discussing the first principles of logic. Similarly in the history of philosophy, the writer may use biographical data skillfully to create a sense of intimacy with great minds and then discuss the ideas of Spinoza or Kant without the student suspecting the tremendous problems left unanswered by their systems. The instructor, for his part, may so shepherd his class through the course with clear repetition of the textbook and apt illustration of the points that interest him that at the end the class are entirely unaware of the depths they have passed over unplumbed.

The textbook writer may, on the other hand, to a limited degree, and the instructor to a much greater degree, seek those first principles that are illuminative. In so doing he may or may not achieve clarity. The poorer students and those in the course merely for credit are apt to be confused, since these principles are actually of no great moment to them and they will make only a mild effort to grasp them. Such an attempt, moreover, entails a personal factor which the more superficial treatment may avoid. It is impossible to consider actual thought processes in logic without introducing uncertainty. Such problems as the nature of inferential meaning itself, the relative importance of converging and conflicting data in a probability judgment, the interplay of intellectual, empirical, and emotional factors in value judgments—these are examples of the kind of data which tend to blur the neat outlines of academic subject-matter; but surely they are not out of place in a course on reflective thinking.

THE history of philosophy presents an even sharper contrast between genuine illumination and pseudo-clarity achieved by respectable superficiality. Sympathy with the difficulties which the great philosophers have faced, appreciation of their insights, and judicious appraisal of the reasons for their failures are such integral functions of the intellectual personality of a teacher that he must take responsibility for drastic selection and emphasis. He may insist that the students follow the outline of the textbook; by that combination of helping, encouraging, and demanding that is known as "good teaching" he can ensure that any student with a modicum of good faith and determination can "get the stuff" and pass the course. But if the instructor wishes his students to sense the profundity and the importance of the philosophic

enterprise, he must venture beyond the obvious in a way that will put all neat summaries into serious jeopardy. This is to risk unclarity.

Students respond very easily to the obvious good sense of Francis Bacon's Idols; with a little gentle prodding they can think of examples of the Idols of the Tribe and the Idols of the Theater in twentieth-century thought. But when the problem is faced squarely: Can any one resign from "the human tribe," or think systematically without using the systems that play their parts on the stage of human thought?—then the clear distinction that Bacon so glibly draws between the obviously true and the obviously spurious begins to lose its sharp edges.

Thomas Hobbes is likewise a clear thinker—up to a point. His thoroughgoing materialism and his unwavering empiricism make the labored distinctions of the scholastics seem foolish. The student, for example, may read Hobbes' explanation of multiple causation—"which, when they [the causes] are all supposed to be present, it cannot be understood but that the effect is produced at the same instant"—and find it admirably clear, as indeed it is upon a superficial level. But when the instructor points out the phrase "at the same instant" as masking an ambiguity that has plagued realist and idealist alike from Zeno the Eleatic to Bertrand Russell, again the student has a glimpse of the depths below the rather shaky bridge of schematic thought. The superior student—at least the student whom philosophy teachers prefer—will look inquiringly into the abyss and then return to follow the thought of Hobbes or Leibniz or Whitehead. The literal-minded, the confused, the unimaginative will be annoyed that they have been invited to unlearn something that they thought they had learned.

All great philosophy is profound and there is no profound thought that is not paradoxical. Moreover, philosophy is not primarily a science; it is primarily an art. Even as a science it makes peculiar demands upon the understanding, for it is the most abstract and most general of all rational systems. It requires verbal ability of a high order to express its far-flung formulas and make its subtle distinctions. The Hindus have known this perhaps better than Western thinkers: "A hair divides the true and the false," says an old Buddhistic saying. "Sometimes we fail to see the hair because we are looking for a cable."

THE subtlety of philosophic argument and the personal equation that makes even the most logical philosophy finally an art combine to make philosophy a hard subject for students whose main intellectual activity during high school and college has been acquiring and expressing what they supposed were "facts." It is quite possible to take courses—good courses—do laboratory work, write "research papers," pass objective examinations, be, in short, an intelligent and effective student in a good college, and never encounter the hazard of identifying those first principles that are the basis of a culture. Many a mathematician—or

at least a geometrician or statistician—has never considered the logic of quantity, the nature of primitive postulates, of axioms and corollaries. Many an earnest instructor well equipped with a Ph.D. in science or in English warns his babes against analogical thinking without the slightest suspicion of what Aristotle meant when he said that ability to see analogies is the basis of all intelligence.

Philosophy is Janus-faced: on the one hand it orders, defines, schematizes; on the other it stands in awe before those first principles that elude the system-maker precisely because they are the presuppositions of all systems. It is vision of those first principles that is illuminative.

Textbook writers and instructors who have this kind of appreciation of philosophy will be illuminating to the student who in his own way and on his own level is glimpsing heights and depths beyond his ability to grasp. To the mediocre or the unawakened student such an element in the presentation of philosophy will seem merely the failure to attain clarity. Quite intelligent persons may fail to appreciate profound thinkers. Thomas Jefferson could appreciate the clarity of Greek architecture, but the paradoxes and the insights that led Plato to attempt to express more than he could synthesize were beyond Jefferson's sympathetic appraisal. In evaluating a course, the sensitive and thoughtful student may be able to express his insights only partially and is liable to be inarticulate if called upon to say what he has derived from an illuminative teacher. He is apt to say simply that he sees things that he had never thought of before; he may say that he has found out how little he really knows; he will almost certainly be too shy to say that he has caught a glimpse of the depths of reality, or has felt more profoundly what it is to be a human being.

Whitehead is right when he says that it is a peculiarly modern superstition to hold that the truest, the most valid, the most important insights are the clearest. The contrary is the case. If it were so, wisdom would be a matter of adding simple insight to simple insight and statistics would be the model of all truth. The Cartesian dogma of clear and distinct ideas is a noble one, and one that we can never afford to ignore; but like other dogmas, it is useful only within limits. Just what the limits are varies with subject-matter, purpose, and level of discourse.

The teaching of philosophy must itself be an essay in philosophy. It has its own special demands and must be philosophy of a special sort; but it may not depart from the spirit of philosophy. If philosophy is what the great philosophers have supposed—inquiry into first principles—then it will always involve a tension between illuminative depth and systematic clarity. The tension is but one phase of the irreducible duality that haunts all profound thought. Neither depth nor system can be fully predominant; neither can be eliminated. Teaching is the art of so using the systematic that the illuminative appears.

"Needs" and "Services"

By PETER A. CARMICHAEL

The Vocation-and-Adjustment Principle Has Resulted in the Discrepancies between the Promises and Results of Education.

WHEN education claims for itself so large a field as the whole of knowledge, character, citizenship, morals, and all else, its perspectives and principles certainly must go far beyond the limits of a vocation-and-adjustment theory, such as we hear much of nowadays. If the question were asked, What then shall be the governing principle in determining the needs which education shall particularly undertake to satisfy? evidently the answer could be nothing less than what we find in those fair catholic aims long since espoused by great universities: *Veritas; Veritas vos liberabit; Lux, Libertas.* In taking these mottoes great European and American universities were not merely making a choice of beautiful words—*truth, freedom, light*—these are the ends of all our seeking, as rational beings. The means to them, the needs which must be fulfilled as the condition of their realization, call to mind a very different set of educational pursuits from those so much to the fore at present. It is unnecessary to give here an inventory of the kinds and domains of learning which are needed for the realization of ends so high and fair, since to all who see and approve the ends they will be apparent. But the following must be said, categorically: A person, whose formative years have been taken up with concentration in the techniques and artifices of fitting himself for a trade, and whose principal teaching, as regards the value and destiny of life, has only been that of social adjustment, is sure to be a stranger to the higher things. He will finish his schooling, not with a fulfillment of the needs of his life (which contemporary education rather emphatically proposes to achieve, nevertheless), but without even knowing what they are, a blind, misled man, betrayed by the shortsightedness of his teachers.

The needs of life are not dissociable from the aims of life. Now the aims of life, with all that they involve in understanding, value, and action, are too complex, too technical, too philosophic, for pedagogical theory, at least as that stands now, to embrace them. The familiar goals set in pedagogical treatises, of occupational skill, social adjustment, and being as active in as many different ways as possible, fall pitifully short. They are either creature goals or else not goals at all, but means only to ends not stated. They might suit an army perfectly, or a totalitarian state; but when

contrasted to the goals of statesmanship, philosophy, science, and religion, they are dwarfed to insignificance.

It is, if not axiomatic, still a lesson of history, that the highest and fairest things are open only to the gifted mind and the contrite spirit. Now the question, What are the aims of life? is one to which the great minds and great spirits of every age have devoted themselves. They have something, probably everything, to teach us on that subject. If we are less gifted and less devout than they, still we can by education learn to follow them, provided education is prepared and willing to teach us.

But we find that education has other concerns for the pupils—a job, sociability, personal dynamics. It is even unacquainted with what the genius of the race has to offer, thanks to the abandonment of classical literature, philosophy, and non-American history. It teaches that everything is flux, hence *carpe diem* (except that it does not use the Latin, since Latin, you know, is a dead language). Socio-economic eurhythmics is the great concern, and school is a gymnasium where exercises in that are provided.

Can a system of education which has turned away from the chief sources of philosophic understanding and adopted materialistic gain as its paramount objective—can such a Philistine system truly tell us the needs of man? What if we sometimes experience needs which our simple praxis, of getting on in the world, has not prepared us for? The needs of adversity, which are universal and for most men the deepest of all needs, are of that kind. What if the majority of us should never acquire the choice jobs, large incomes, or social prestige? Or if the discerning ones should gain—as they do soon or late—the insight that the great truths, the great ends, the pattern of reality, are profoundly different from the petty, venal concerns of their schooling? For all such, that species of education is a failure and a positive impediment. The true needs, in their case, were not met and not discovered by the school. They were even obscured, their place pre-empted by the meretricious wares of "progressivism."

SO MUCH is evident from analysis. It comes to light in another way also. What is the significance of the interminable agitation over curriculum "building," of the relentless criticism of the school and college product by the world at large, of the crusading, intemperate spirit of so many books on the philosophy of education? All this unrest is a sign indeed, and what it signifies is clear enough: that something is gravely wrong in the educational process. Can we say particularly what this is? Let it suffice to observe that, whatever the particulars as to number and variety (and a large array is alleged by all parties), they are evidently related to the aims which educators have set—which is another way of saying they are related to the prevailing conception of educational needs. In fine, the pedagogical discord is a reflection of errors made in the theory of educational needs. The more intense the discord, the more erroneous the underlying theory is likely to be; and the discord is indeed extreme.

It would not be difficult to locate a considerable number of specific errors of a serious nature in the dominant theory of education of our century. For present purposes only two, which are of radical character, need be noticed. One is the error of supposing that our predecessors were uninformed about the needs of life and so have nothing to tell our age on that head, and the other, which is closely related to the first, is the supposition that life is in all respects a ceaseless flux.

As for the first. Consider a few examples of our rejected predecessors, such as Homer, Hesiod, Sophocles, Plato, Aristotle, Antoninus. Now every accomplished student of those great writers knows that they achieved understanding, on matters of life's meaning, needs, and goals, far excelling the most that any of us would claim. They also know that such understanding was not relativistic as to time; it was relative to man and the world, yes, but not relative merely to time. If men and the earth had become generically different in the interim, then something could be said in support of the view that knowledge in this domain is only relative to time. But the reader of the *Iliad*, *Works and Days*, *Antigone*, the *Republic*, the *Ethics*, the *Meditations*, finds no reason to suppose that either *homo sapiens* or his world is generically different today. Or suppose we took the *Divine Comedy*, *Don Quixote*, the *Essay concerning Human Understanding*, *Wilhelm Meister*, *I Promessi sposi;* are these not works about man, as valid today as they were one to six centuries ago? The critical student of them knows perfectly that they are, and that they show not only the needs of life but also its hopes, fears, worth, and destiny. One should be much surprised if anything in modern pedagogy gave a tithe upon such high subjects of what these monuments of genius have to give.

The other of the two grand pedagogical errors, which hypostatizes change into Change and conceives us to be in subjection to it, is one of the wonders of the intellectual world. Nothing, indeed, quite matches it. Had we been born only yesterday, and possessed no science, no reason, no philosophy, but only the evidence of our senses, such an error would be excusable. We have, however, an immense body of knowledge (or at least it is available to be had), of things far exceeding sense data. Why we should ignore this as we do, and behave as though we had only come upon the scene overnight, is truly a marvel. Obviously the superficial notion that nothing stands, everything passes, will not tally with the knowledge which the past has in fact left to us; *ergo*, that knowledge must go—is not knowledge *per se* (of which there is none), but only a record of quaint custom and mistaken belief, of little consequence to our changed time. So runs the pedagogical reasoning of the present.

YET the gospel of Change is stultifying to pedagogy. For if everything passes and nothing is certain, what is the use of education? What could it teach? What, furthermore, is the justification under such circumstances of holding continually up to us the idea of progress? If it is

a world of flux in every respect, then the likelihood of progress may not exceed that of regress or of recurrence. It may seem a merely ironical question, though it is much more, to ask finally, What of progressivism—what ground is left for it to stand on? For if change is everything, progress and its corollary, "progressivism," are *petitiones principii*.

The need of everyone to which education can properly minister is the fulfillment and elevation of his capacities, in accordance with our fullest understanding of truth and of goodness. Position, money, social success, and the rest are means only—some of the means—to that end; otherwise a man would be very little different from a slave or a piece of machinery. I suppose few who direct our education are acquainted with the teaching of Immanuel Kant on this, that every man is an end, not a mere means, or with the grounds on which Kant rests this teaching; and I may suggest that if those responsible were so acquainted, and were well trained in the associated disciplines of reflective analysis and evaluation, they would be much less liable to error, and especially the grave error of mistaking human means for ends. Our implicit purpose in seeking education is humane: deliverance from the bondage of ignorance, achievement of a magnanimous way of life. When, therefore, education is so conducted that this ultimate goal is left out, and attention is concentrated on pragmatic, material interest, a lamentable miscarriage has occurred. According to many signs, the aim of school, college, and university is now greatly foreshortened. Outside of the oldest and most élite centers it will be found that the more catholic studies are declining, and with them declines catholicity of learning and culture. Such decline is apt to be followed soon by a corresponding realization of loss, failure, and need. No doubt the kinds of need which occupy pedagogy so much at present are not of this degree of generality, but all of them are tokens—of the need of liberal education.

JUST now the conception of liberal education as a servant of professional education is coming into a certain vogue. The liberal-arts college is spoken of more and more, I believe, as a "service" branch, meaning one that understudies the technological or other occupational schools. Under this view, the preparation of the youth for studying business methods or law or engineering or what not, is the office of the liberal-arts department. Hence the numerous pre-professional curriculums, hence also the general survey course, the specialized survey course, and the capsule course (such as "English for engineers," business correspondence, medical Latin, and the like). It is argued that 75 per cent or more of the liberal-arts students pass over into occupational pursuits, therefore, we must give them a type of training that will facilitate their advance in that line. Now it would be difficult to make out a better case than this for submerging the arts college into the others or for abolishing it outright. So we cannot be surprised, a little while hence, if we hear those commerce and engineering deans who cannot get along with the humanities come forth with such proposals.

Yet on the other hand it is not the leading authorities in professional education, judging by expressions of theirs from time to time, who desire to see liberal education humbled to the position of a handmaid. Rather they seem to think it ought to stand up more vigorously than it does. By way of example I cite the following from the Secretary of the Association of American Medical Colleges:

> In my opinion, Latin and Greek (especially) are the most valuable subjects in the college curriculum. But students shy at them: they feel that they have no value—that they are drudgery. I believe the fault lies with the colleges, in that they disregard the classics and endorse science, more science. This Association is opposed to so much science, and it definitely favors and recommends a cultural education with the classics as a basis. Personally, I would unhesitatingly accept as a medical student one who is long on the classics, especially Greek, and short on science. Physicians should be *educated*, not *trained*.
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> In my opinion, the arts colleges are the ones to do something about bringing back the classics as valuable in general education. If they will stop their pernicious and objectionable (to this Association) "pre-medical" propaganda (that is what it is—a bid for students) and stress education, self-education, many of our problems concerned with better scholarship will be solved.[1]

Considering the frequency and the intensity of criticisms like this, and their obvious cogency, is it not remarkable that a tendency toward obliteration of liberal-arts training *per se* should have arisen? What is the explanation? It seems to be principally the following: First, those who are the spokesmen of that tendency are letting themselves be swayed by statistics, which they have not taken care to analyze. Second, they are themselves less and less interested, and less and less educated, in the humanities. To this I will add that not only are the office men of liberal education rarely distinguished for the actual possession of liberal education nowadays, but neither, alas, is the professor an invariable example himself. In all manner of science, real or pseudo, and in parvenu studies such as "speech" and "physical education," as well as some of the humanities themselves, a teacher can now get along handsomely if he is well trained in just one or two specialties. It will make no difference if he mutilates the English language, both written and spoken, or if he is a total stranger to history, letters, and philosophy; nor if he is ignorant of other specialties; nor if he is prejudiced and superstitious; nor if a stranger to the amenities, or even slovenly in appearance and habit. This in turn means, I should say, among other things, that higher education has got out of hand and has no manifest direction. It is an ironical commentary, but none the less veridical, that as emphasis has been given to administration, by exalting presidents, deans, and directors, educational direction, the very thing sought, has been lost. There is of course direction; but hardly educational direction. We are under a business direction, which like all other such is going to place uppermost the tangible returns, the volume, the

[1] From a letter by Fred C. Zappfe printed in the *Classical Outlook*, XVIII (October, 1940), p. 8.

caprice of the market, competition, "promotion" strategy, and so forth. Accordingly it is no surprise that the intangible though supremely real objects of the liberal arts should move steadily nearer eclipse; and we easily understand how the statistic-minded dean or director, having discovered that 75 per cent of the arts students proceed to something technological, presently gives to the educational world a new conception—that of the liberal-arts college as handmaid to the job colleges.

BUT why stop at that? Why not eliminate the liberal arts altogether? It is not impossible to make out a program by which the student can telescope the entire liberal-arts curriculum and pass directly from the high school to the technological college. This only requires the omission of such technological inessentials as English literature, foreign language, higher mathematics, history, philosophy, and the like, and concentration in just the techniques and materials that concern that type of college. Probably some of the high-school work could be eliminated as well. In any event, if the object is exclusively technological or professional training, or that of getting through school and to the job in the briefest feasible time, there is no need whatever of sending youths to college.

Is it not odd, then, that technological and professional schools now more than ever should demand a college education of those entering? Or that private employers and the civil service should require it? All of these desire, and need, not merely rotes and crafts, but enlightenment. Not very long ago the academic administrators were talking about education of a type which seemed to have enlightenment as its aim. As if such education had never been known before, and therefore had no name, they commenced to call it "general education." The idea was that we needed more of that: at least that the professional schools thought we did. Then do we no longer need it (seeing that it is so neglected), or have the professional schools suddenly ceased to expect it? The answer is quite plain: Of course the need still stands, intensified if anything, and the professional schools and the professions are outspoken in recognizing it. Not much less evident is a corollary: The administrators cannot make up their minds, or at all events cannot stand by a decision once made in the matter; and this, it may be remarked, is a strange thing in men whose first trait is supposedly the ability to make clear decisions and stick to them.

Educators need to remind themselves that in spite of all their innovations, like still breeds like. Learning is not got from those who do not have it, nor refined judgment from the uncultivated mind, nor the prospect of the good life from persons who never gave it a thought. It would seem a truism that only those who possess these qualities can transmit them to others—but we are doubtless now to suppose that in a "changing world" even a truism is not true. Further, catholicity of learning is called for not only in the classroom but in every educational office having any authority over education. It is

undoubtedly due to a subtle and deceiving abandonment of principles so simple and clear, that the decay of liberal education has come about.

The needs which chiefly concern the most zealous spokesmen of education nowadays are needs which the elementary school and high school are perfectly capable of satisfying. Eleven or twelve years is a long educational time, if not frittered away on misdirected endeavors or in idleness. The four years assigned to college education ought to be devoted entirely to enlarging and cultivating the understanding, not for the vulgar purposes of money-making, popularity, and creature gains, but for the express purpose of emancipating us from bondage to such, and for the further purpose of making us rich even though we never have a fortune and successful even though we should never court popularity nor move far from the secret solitude which is the greater part of life in any case.

Education such as the term *Bachelor of Arts* stands for is wholly that kind which concerns our highest faculties, the mind and spirit. Its sole need is enlightenment, understanding. From that arises every other quality which education can profess to induce or cultivate, such as fineness of discrimination, whether in affairs of reason, taste, or morals; adherence to the higher of two goods, even though the practical cost (which is sovereign to your progressivist) should be dear; and realization, even now, of the fairest and highest ends which human vision has yet attained. Analogously, if these results are not achieved, if liberal education leaves the student a stranger to them, or an enemy, we may be sure the need which liberal education is instituted to fulfill has not been fulfilled. Were the liberal-arts college performing its office with anything like the efficiency of the technological college, the latter would not have to complain about the lack of learning and culture among its students.

THE term *service* has no appropriate place in liberal education. I am sure it has not been imported from ecclesiastical sources. The use to which it is put is suggestive of the commercial world. There it is alleged that a clerk who superciliously takes a person's money for a purchase, or a manufacturer who gives one not less than what one pays for, is performing a service. It is a very superficial if not hypocritical use of the word *service*, as of so many other commercial words, but it answers very well to what the liberal-arts deans mean when they speak of "serving" other colleges. They are talking about traffic, turnover, so many graduates led into jobs. But they have little to say on how many attained a liberal education, though that is the sole measure of their true "service." So far as they have conducted their students to any other goal, it was a disservice; and since the so-called service motive is away from learning and toward just that kind of goal, we are justified in concluding that what its minions are about is not truly service but, truly, disservice.

No person of refined mind would visualize G. F. Babbitt as his model of liberal education. Nor would he

choose the rich oil-man type, nor the sort that is ill at ease when not in company. A composite of these types is, however, the ideal before contemporary pedagogical masters, so far as they have an ideal. Could we expect anything very different, having repudiated the classics of all sorts,[2] having rid ourselves of all discipline, including the intellectual kind without which the mind remains in infancy throughout life, and having made ourselves thoroughly gullible to everything new and specious?

Perhaps it is the intrinsic excellence of liberal education—its superiority to the trade-drummer's tactics—which finally explains its decline, in an era plagued by those tactics. But perhaps another reason might be found in the diffidence and petty fears of the learned. Whatever it is, the professors of language, literature, history, and philosophy, and their colleagues in mathematics and the bona fide sciences, and all that they represent, are having to pay, by seeing such interlopers as social "science," physical "education," "speech," journalism, "home economics," "English for engineers," and such like take control of the curriculum. Not only so, but they have let the positions of authority in their institutions go to persons whose sympathies were either with this element or else with mere superficial expediency. Whenever the combined forces of liberal education become self-conscious and choose to put the impostors out, there is nothing that can stop them, for the good reason that it is simply impossible in education to make out a plausible case against liberal education. Let us hope these forces will not wait forever to act.

[2]One of the most remarkable things in modern pedagogy is the repudiation of the classics, that is, the repudiation of learning. It means that history is bunk, containing no lesson, no truth, and no interest worth our while. (It also means the pedagogues owe grateful acknowledgments to Mr. Ford.) Does it mean, too, that we are intellectually enfeebled and are presently to fall into the other stages of decadence which usually ensue upon the decline of mind? To suppose that the classics passed into eclipse because of new needs in a new era, seems only superficial, for the deepest needs of the ages are expounded in the classics and not elsewhere, and solved also, as far as they have been solved at all. It seems unintelligible that educators acquainted with them should discard them—as if an engineer were to discard mechanics. We can only suppose the innovators are ignorant of the classics. But in that case they have obviously missed their calling.

The Faculty Dollar

By ARTHUR H. WINAKOR

Cost of Living for Faculty Members in State Universities

EDUCATIONAL institutions are faced with a situation comparable in many ways with conditions that existed twenty-five years ago. At that time, as at present, prices and the cost of living were rapidly rising, but without a commensurate increase in academic salaries. The result was and is again that the faculty dollar is rapidly declining.

In view of the sharp increases in price levels and in the cost of living, the question of salary adjustments for the faculty as well as other groups remains an important problem. The probability of further increases in the cost of living during the next few years, in spite of the efforts of control by the Office of Price Administration, adds significance to such comparisons.

One must be guileless, indeed, not to anticipate further, and possibly sharp, increases in the cost of living in view of the insistence and power of great pressure groups which wield important influence on the economic policies of governmental administration. These are pressing for higher wages, higher food and commodity prices, and thus keep the ball of prices moving to constantly rising levels. Even if these pressure groups were absent, the present economic condition, which finds the masses of the people with vastly increased income at the very time when goods and services for consumption are curtailed, would operate for higher prices. No government can hope fully to cope with all of the economic, moral, and political forces seeking to increase prices. It is only natural, therefore, that interest should again be displayed in and requests made for comparisons of salaries of the research, instructional, and extension staffs of colleges and universities, and for comparisons of salaries of those staffs and the purchasing power of their salaries. This interest is all the more intense since salaried groups in general have not shared in the great increase in national income.

Unfortunately, these maladjustments in prices manifest themselves at an inopportune time. Most institutions are already faced with severe demands on their financial resources because of higher prices for materials, supplies, and equipment. In addition, their incomes are being curtailed by declining enrollments. Unlike indus-

[1]The new administrator of the Office of Price Administration has publicly stated that he expects prices to rise about 6 per cent per year. A similar opinion is expressed by the *Cleveland Trust Company Bulletin* for December 15, 1942, which states that the cost of living "may be expected to rise about 5 to 10 per cent more next year."

try with its "cost plus" contracts and rising income, education finds its income fixed or declining at a time when its main expenditures, which are for salaries, should be increased. Although curtailments in staff because of war demands have reduced expenses, such reductions are not equivalent to the shrinkages in student income. In any event, there must be adjustments in salaries or the institutions will find either that the work of years spent in building up an effective staff will be destroyed or their faculties will be reduced in economic status far below the minimum for essential living.

IN ORDER intelligently to consider what adjustments should be made in salaries, information is needed regarding the cost of living of the faculty. The two commonly recognized indexes of the cost of living, the *United States Bureau of Labor Statistics Index* and the *National Industrial Conference Board Index*, are not suitable for the measurement of changes in cost of living for an academic staff. These indexes are computed from data for working classes in the large cities of the United States. The weights employed in combining the several constituent items of food, clothing, housing, and the like are those that would be suitable to the manner in which a working man rather than a university professor employs his income. These indexes are built upon a foundation of household budgets sampled from wage earners and white-collar clerical workers. Their average earnings have been low, and the manner in which they employ their income naturally differs from the habits of university faculty members. For example, the average salary of the working population whose living costs are measured by the cost of living index of the United States Bureau of Labor Statistics was $1,524 for the period 1934–36. This is to be contrasted with an average of $4,245 for professors in land-grant institutions in 1939–40 according to the United States Office of Education. It is at once evident that dissimilarities in expenditures are numerous and material.

There are, however, certain elements in common. Both groups must buy food and clothing and rent or own a residence. The prices and quality of goods purchased may, of course, greatly differ, although this is less true now, with the great increases in workers' incomes, than formerly. The major difference lies in the relative sums each group spends for these component items of cost of living rather than in the quality. The factor of quality will in large measure be governed by the price and the amount of money spent for each item. Important price increases sooner or later reach all levels and qualities. Thus, if the general movements of the main constituent items are known, a better appraisal of the relative costs of living of the two groups will be possible.

From such data regarding the price movements of food; clothing; rent; fuel, electricity, and ice; household furnishing; and miscellaneous items the cost of living indexes have been computed by the Bureau of Labor Sta-

tistics. Price movements for a group are expressed as an index number relative to the average price for that group for certain years. The period 1935–39 is a convenient base for reference for it is sufficiently recent to be meaningful for interpretation and analysis. Some of the items in the cost of living have varied more than others. Clothing, for example, jumped from 69 in 1913 to 201 in 1920, then dropped to 88 in 1933, and was back to 124 in 1942.[2]

Only one additional factor is needed to make possible the construction of an index of the cost of living. This is the relative shares of the budget that are employed for food, rent, and other items. In the case of the wage earner the Bureau of Labor Statistics has assembled such data. The wage earner spends 34 per cent for food, 11 per cent for clothing, and so on. For the university faculties such data have not been regularly assembled.

ALTHOUGH there is no entirely satisfactory index of the cost of living of university faculty members, considerable advantage may accrue from another study relating to the problem. A study was made in 1932 by Viva Boothe on *Salaries and the Cost of Living in Twenty-Seven State Universities and Colleges, 1913–32*.[3]

[2]The price indexes of the major constituents of the cost of living from 1913 to 1942 compiled by the Bureau of Labor Statistics, United States Department of Labor, were assembled from two sources into one table which is not printed here because of lack of space. The figures through 1940 are found on page 44 of a Bureau bulletin entitled *Changes in Cost of Living in Large Cities in the United States, 1913–1941* (Bulletin No. 699) and those for 1941 and 1942 in an article "Cost and Standards of Living" in the *Monthly Labor Review*, June, 1943, page 118.

[3]Columbus, Ohio: Ohio State University Press.

Based upon a questionnaire which brought in 802 acceptable replies from the faculties of 27 state institutions, budgets of a university faculty were assembled for expenditures in 1925–26. By ranks, 5 per cent of the replies were from deans and directors, 25.1 per cent from professors, 22.8 per cent from associate professors, 24.6 per cent from assistant professors, and 22.5 per cent from instructors. Based upon these 802 replies, the manner in which the faculties of state universities and colleges spent their money was computed. Since these budgets are several years old, they are no longer applicable to recent conditions. Prices of the constituents of living costs, for example, have changed relative to their former level and relative to one another, but adjustments have been made for this factor by correcting the weights and shifting them to the average of 1935–39 prices. These revised weights are listed in Table I in comparison with those employed for the wage earner. They show that the faculty of a state university normally spends

TABLE I

DISTRIBUTION OF EXPENDITURES FOR COST OF LIVING INDEXES OF WAGE EARNERS AND FACULTIES OF STATE UNIVERSITIES BASED ON AVERAGE OF 1935–39 PRICE LEVELS

Total—All Items	Wage Earners	Faculty
(1)	(2)	(3)
Food	33.9	20.7
Clothing	10.5	13.0
Rent	18.1	19.0
Fuel, electricity, etc.	6.4	4.9
Household furnishings	4.2	6.2
Miscellaneous	26.9	36.2
Total	100.0	100.0

about one-fifth of its funds on food as contrasted to one-third by the working classes. Clothing takes 13 per cent of the faculty funds as contrasted with 10.5 per cent of those of the wage earners. For both groups slightly less than $1 out of each $5 goes for rent or estimated rental value of residence if owned. Fuel, electricity, household operation, and furnishings account for about 11 per cent of each group's total cost of living. Expenditures for miscellaneous items bulk much larger for the faculty man than for the wage earner, the former spending 36 per cent and the latter 27 per cent of living costs for these items. These include personal necessities, amusements, medical and dental care, books, magazines, association memberships, and travel. It is in such items that the faculty expenditures greatly surpass those of the worker, both in absolute amounts and relative to total expenditures.

THE weighting of the cost-of-living elements by the figures given in Table I, produces the two indexes of cost of living in Table II. The first index is for wage earners as prepared by the Bureau of Labor Statistics, and the second for a state university faculty. Both indexes are subject to certain inaccuracies. Shortcomings of the university index are probably greater than the index for wage earners. Both indexes, however, provide working tools for the analysis of salaries in relation to living costs.

Based upon their respective costs of living for the years 1935–39, the faculty index remained below the wage earner's index for 1913 to 1930. Cost of living for both groups increased until 1920 and then began to decline. The fact that the faculty index was lower in 1913 than the wage earner's index means that faculty costs of living stood at a relatively higher level in 1935–39 than did the wage earner's cost of living. In other words, faculty living costs moved to a higher plane of expenditures during recent years when compared with expenditures of earlier years. The change was greater than the comparable change in living cost for wage earners. In 1941 the cost of living for both wage earners and faculty increased by about 5 per cent. Another 10–per cent increase was re-

TABLE II

COMPARISONS OF COST OF LIVING INDEX FOR LABORERS AND CLERICAL WORKERS* WITH THAT FOR UNIVERSITY FACULTY MEMBERS

Year	For Laborers and Clerical Workers†	For University Faculty	Year	For Laborers and Clerical Workers†	For University Faculty
(1)	(2)	(3)	(1)	(2)	(3)
1913.....	70.7	68.1	1928....	122.6	119.9
1914.....	71.8	69.2	1929....	122.5	119.6
1915.....	72.5	70.1	1930....	119.4	117.2
1916.....	77.9	74.9	1931....	108.7	108.7
1917.....	91.6	86.3	1932....	97.6	99.1
1918.....	107.5	101.3	1933....	92.4	93.6
1919.....	123.8	116.9	1934....	95.7	96.0
1920.....	143.0	135.7	1935....	98.1	97.6
1921.....	127.7	125.0	1936....	99.1	98.6
1922.....	119.7	117.6	1937....	102.7	102.4
1923.....	121.9	119.7	1938....	100.8	101.5
1924.....	122.2	120.4	1939....	99.4	100.3
1925.....	125.4	121.2	1940....	100.2	100.8
1926.....	126.4	122.9	1941....	105.2	105.1
1927.....	124.0	121.3	1942....	116.5	115.3

*Average for the years 1935 through 1939 equals 100.

†Index prepared by United States Bureau of Labor Statistics; *see* references given in Footnote 2 of this article.

corded in 1942. If the December, 1942, figure is taken alone, it is found that wage earners' costs had increased to 120.4 and that faculty cost of living had touched 118.1.

THE significant findings of the table are that even though custom, living standards, and similar factors dictate that a faculty will spend funds in a distinctly different pattern from the wage earner, the final indexes of living costs have moved in the same general direction and for the most part in about the same degree. It should be noted, however, that the indexes say nothing about the actual amounts of money available to members of the respective groups for living, nor of changes of income intended to match these changed living costs. It is general knowledge that wage earners reaped a rich harvest in the period from 1916 to 1920 and even until 1929. The gains in real income made by workers during these years have been maintained and increased, and are rapidly advancing during the present war. Average annual income of factory workers is now far in excess of income for any prior period.

Faculty salaries increased slowly during the last war with resultant hardship and decline in real income. The same conditions are reasserting themselves today. Living costs are sharply rising, but faculty salaries are only slowly increasing. Under these circumstances the university employee is faced with sharp shrinkages in his real income and serious readjustments in his mode and standard of living. Unless the typical faculty man in a state university has had a salary increase of 5 per cent in 1941 and 10 per cent in 1942, his ability to maintain a standard of living based upon habits and customary expenditures, has been impaired. Most likely his expenditures for recreation and travel, books and periodicals, savings, health and medical care, or the like will suffer due to the loss of real income. His health and efficiency may be impaired if the loss of income becomes too acute or is greatly prolonged, and if he is unable to continue essential expenditures for maintenance of sound living.

Disinterested Curiosity and Social Concern

By H. S. BROUDY

The Responsibility of the Teacher of the Humanities

MUCH of the optimism about the postwar world seeks its justification upon the scientific advances now being born in war laboratories. Yet thoughtful persons who see beyond the electric refrigerator and automobile recall uneasily that the technological advances of the pre-war world had not been altogether translated into the social welfare so unequivocally promised for them. The gap between disinterested curiosity, which is the lifeblood of science, and the very interested concern about the uses to which the discoveries are put is difficult to ignore. The solution lies in closing this gap, for so long as it exists there is no guaranty that the uses to which knowledge is put will not be as often evil as good.

It is generally agreed that the pure scientist must be excused from the task of worrying about the social consequences of scientific truth, because should his curiosity become too interested in extra-scientific considerations, there may be little scientific truth produced to worry about. Some would, therefore, place the ethical burden on the technologist or the user of science who would solve the task by professional codes of ethics. Another suggestion is that education can help by a return to philosophy and liberal studies which deal with evaluation.[1] These suggestions, on the surface, seem to be so obviously right that it may be valuable to point out some of the difficulties which might very well stand in the way of so sensible a solution.

Technology may be called the *logos* or rationale of an art. Whenever an art regulates its practices by an organized body of knowledge or doctrine, it assumes the status of a technology. Arts, therefore, become technologies as fast as theoretical bases are used by them. In a complex civilization a division of labor often gives the work of advancing theory to the pure scientists and the work of applying the theory to the technologists. The former often becomes an enterprise independent of the latter, but the latter tends to remain dependent on the former.

The multiplication of sciences has increased the number of callings which can come under the rubric of

[1]The reader is referred, for example, to the article by Carroll C. Pratt, "Postwar Technology," *School and Society*, LVII (February, 1943), pp. 145–49.

technology. Nursing, teaching, landscape gardening, business administration, to name a few, require preliminary study of certain bodies of organized knowledge. These arts have risen above their purely empirical characteristics and have become technologies. This expansion of technology into so many fields of human endeavor and the prospect of greater expansion after the war make the ethics of technology a crucial problem.

The transformation of an empirical art into a technology is usually achieved through education when the body of knowledge pertaining to it is made an implicit or explicit prerequisite to the use of the art. The introduction of ethical considerations might, consequently, be expected to be part of this technological education, or it might become a part of a general pretechnological education. It might, of course, be a part of both, but an examination of these types of education may indicate why it is apt to be a part of neither.

THE body of knowledge necessary for technological competence is usually taught by a specialist in the science—as eminent a specialist as the particular institution can afford. He will have distinguished himself by a disinterested curiosity in his subject. He may or he may not be interested in his students, but to expect a distinguished pure physicist to punctuate his paragraphs with moral disquisitions is expecting a great deal from disinterested curiosity.

If it is argued that those who teach the applied courses cannot escape the responsibility for evaluating, or at least for setting, the moral norms of the specific art, then the facts will not always support the argument. The fact is that ways of applying physics, mathematics, chemistry, and psychology to various arts can in themselves become absorbing specialties. Each tends to concentrate on means and principles whereby the application can be effected, and to the extent to which it succeeds, it also develops disinterested curiosity within its devotees. In other words, if the professor of pure thermodynamics may be excused from worrying whether his new discovery in the field will be used to produce a lethal 100-miles-per-hour automobile, can we ask the professor of automotive engineering to take a different attitude? Shall we ask him not to teach the new discovery because such automobiles ought to be suppressed? Or shall we ask the engineer to forget this principle when ordered to design an automobile? Will not the answer be the same from each of these? Will each not say that such moral and social considerations are quite outside of his "field," and that the very development of his field depends on ignoring such considerations? This is the only logical answer that such specialists can make, and as long as they make up the bulk of the instructional staff in professional training, our problem can come no nearer to solution.

It has been suggested that the actual practitioners of the various arts take upon themselves the responsibility for the moral effects of their work. The self-imposed ethical code of the physician is often held up as an

example. Admirable as this code is, it is doubtful that it can serve as a model for other arts.

Within the rather limited medical code, the individual physician is a free agent. He is confronted by moral issues precisely because it is he who has to make the important decisions. On the other hand, whether a man ought or ought not to live is not a moral issue for the physician as physician, because the decision is not his to make. The nurse, however, is not called upon to make so many decisions; indeed her professional code prevents her from doing so, and the whole doctor-nurse relationship would collapse if she were permitted to pass on the rectitude of the physician's orders.

A good many, if not most, technologists find themselves more in the status of the nurse than the doctor. Law clerks who question the propriety of their superior's decisions, engineers who refuse to work on an employer's product might be admirable persons, but in our complex social and industrial structure they would not long be employed technologists. It is difficult to make such technologists *loci* of moral responsibility, because their freedom of action is limited.

WHO, for example, has the moral responsibility for making or not making an automobile which utilizes the finest work of pure science to kill thousands of human beings each year? We have ruled out the pure scientist, who is not supposed to care what use is made of his discoveries. The designers and engineers are hired men; hired to provide means and not to formulate aims; the managers may argue that they too are hired to produce efficiently and not to decide on what is to be produced. The directors can shove the responsibility on to the stockholders, and the latter may in all honesty disclaim all knowledge of everything save the dividend checks.

Somewhere along the line there must be a genuine *locus* of responsibility, but it is difficult to fix. Indeed, one of the evils of a complex interdependent society is precisely this dispersal of moral responsibility, and therein lies one of the difficulties of erecting ethical codes for many technologies. Such codes are possible for lawyers, doctors, and clergymen, because they enjoy a large share of freedom in their work; without such freedom codes are either artificial, trivial, or meaningless.

Actually, the job of evaluating the impact of technological products on society is the subject-matter of another set of technologies and chiefly the arts of the statesman, the clergyman, and the educator. It is the statesman's business to prevent the production of the lethal automobile or to control its use. It is the clergyman's duty to inveigh against such vehicles, and it is the job of the educator to produce a body politic which will not tolerate lethal automobiles or would refrain from operating them lethally. In fact, a good deal of the moral indifference of the arts may be due to the assumption that the moral arts will make all the necessary moral decisions. That these arts do try to make moral decisions cannot be doubted; whether these are really

effective and how they become so is another matter.

Can we leave all moral questions of technology to organized religion? If ours were a religiously homogeneous nation, we might be well satisfied to do so. But where such homogeneity is lacking, which religious group is to decide the ethics of such technological matters as birth control?

Can we leave these questions to the lawmakers whose avowed business it is to protect society? We could if these men were free agents. But in a democracy where lawmakers are freely chosen by the people and are responsible to them, it is the people and not the lawmakers who are truly free agents. What art, then, is to make this people morally sensitive? A great many agencies, but above all, education.

When a problem is so serious that the only solution is the education of an entire people, then it is a serious problem indeed, for nothing is more difficult than this. Yet in a democracy we are rather committed to this extreme remedy, and, as a matter of fact, there is no more genuine remedy than this—when it works. The salvation of mankind is that it does sometimes work.

WE RETURN, therefore, to the more or less commonplace conclusion that the problem of making technology ethically sensitive is really the problem of making man ethically sensitive. Diverse ethical codes become possible only when the groundwork for them is laid in man as man. But the education of man as man and not as doctor, lawyer, or chemist has traditionally been the function of liberal or general education. The liberal-arts colleges usually provide the pre-technological backgrounds for standard professions. In addition, they furnish the background and training of many leaders in all fields. Why, then, cannot the liberal-arts colleges solve the ethical problem for technology in particular and for the nation as a whole?

The curriculum of the liberal-arts college certainly contains enough to make its graduates wise and moral as well as learned. The best in literature, philosophy, history, science, economics, and political science is spread out in attractive catalogues. Specialists in each field are carefully selected to teach this accumulated and accumulating wisdom of the ages. What then is the difficulty?

The answer may perhaps be found in the fact already mentioned, that the various subjects of study tend to become organized bodies of knowledge with highly technical methods of investigation which take years to master. The vastness of a given field makes specialization imperative. Mastery means digging a deep and narrow shaft. The diggers learning at the feet of the master diggers absorb a veneration for "the field." Those who dig best are appointed to the faculty; promotion depends on continued digging, and one must dig in the same place or all is lost. In brief, scholars in literature, languages, art, and nearly every other subject tend to become pure scientists of their respective specialties and claim for themselves the rights of all pure scientists, namely, not to be concerned

with the social implications of the study. Even teaching becomes a necessary nuisance which interferes with research, but which must be endured because it provides the bread to sustain the hand at the shovel.

Those advocates of the humanities who scold the physical scientist for his amorality should first make sure that the scholars of the humanities are no less amoral. Indeed, philosophy itself, the queen of all evaluation, is not altogether innocent in this respect. The bigger and richer a department of philosophy is, the more likely it will be that it will have specialists in logic, metaphysics, history of philosophy, philosophy of science, and theories of values. They too have their fields, their digging, and their distinterested curiosity. Too few are so naïve as to believe (as did the very naïve Socrates) that their mission is to make men better and wiser. In brief, the disinterested curiosity of pure science has become the ideal of the humanities as well. This may be as it should be, but to expect disinterested curiosity to produce technologists with interested curiosity is to rely on a miracle.

One solution of the problem is the evolution of a new type of college teacher both on the technological and on the pre-technological level. This teacher will have served an honest apprenticeship in learning and research. He will be a first-rate scholar, but he will be more than that, for he will have a more or less passionate interest in all men as men. There have been such teachers and there still are, but they are rare and they will become even rarer, unless our institutions of higher learning choose their faculties with this ideal in view.

A Memorandum on Regional Studies

By MORTIMER GRAVES

Practical Ways of Meeting the Emergency

ONE of the most interesting phenomena in educational thinking during the war is the growth of interest in regional or areal studies. Those who are looking for trends can probably discover that this development is not a creature of the war itself, but merely an intensification of a process already observable in the pre-war period. Certainly, American education had begun to concern itself modestly with Latin America and the Far East, and certainly there was a good deal of talk even if less action about the breaking down of disciplinary barriers for the study of world areas. The demands of the war for military operations, liaison, occupation, relief and rehabilitation, and other essential activities have given an impetus to this development, so that education is now faced with the problem of considerably reorienting itself so as to provide persons with necessary regional training for these operations. Experience and experiment acquired through the necessities of the war cannot but carry over into post-war education, let us hope to its improvement.

The division of the world into regions will usually reflect the idiosyncracies of the divider; in any case there will be overlappings. But for practical purposes general agreement could probably be reached upon the fact that there are certain regions of primary importance, like Western Europe, the United States and Canada, Latin America, the Far East, Russia, the Arabic and Islamic World, and others of secondary importance, such as Southeastern Asia, Central Asia, and Equatorial Africa. None of these areas, of course, is completely homogeneous, and further division into more minute fields of interest would certainly develop. It ought not to be too much to hope that the American university structure which is being built to fit the scientific, spherical, social, dynamic world of the second half of the twentieth century will present full regional emphasis on all of the primary areas together with adequate coverage with respect to those secondary. It is not suggested that the regional approach dominate the universities nor that the disciplines be neglected, but only that the means for full disciplinary operation within any area be at hand.

REGIONAL studies embrace at least two concepts. There is first the necessity for persons who have been trained in the usual disciplines to integrate their own studies around a region—usually a region which has not hitherto been much considered in American education. With this conception a political scientist might determine to devote his major attention to a region like India, because in its millenia of recorded history India has produced contributions to political thinking which bear comparison with those of Europeans and because during the second half of the twentieth century it will be a tremendously important laboratory of political experiment; or a historian might acquire the linguistic and regional competence to concern himself with the T'ang or the Abbasids rather than the Merovingians or the Plantagenets. It is this concept of regional studies which seems to concern the Committee on World Regions of the Social Science Research Council, now preparing a report on the subject. Over the past decade or so there has been not inconsiderable progress in this kind of expansion of interest among American scholars, though at the best this progress is only a merest beginning at the task which still remains to be accomplished in bringing the power of the disciplinary sciences to bear upon the study of hitherto understudied regions of the world's surface. Similar progress has been made in Germany and in the Soviet Union, with lesser development in France, Great Britain, Italy, and other countries.

The major bottleneck in this kind of operation is the lack of competent well-trained scholars. One method of approaching this problem, of course, is to try to develop native social scientists. Probably the best work in Chinese economics of the present day is being carried on by Chinese scholars most of whom have been trained in American universities or in American-supported schools in China. We should similarly try to develop native Indian sociologists, Arabic linguists, Persian political scientists, and Siamese historians. But, in addition, we must provide American social scientists with the linguistic and regional knowledge necessary to specialization on a regional basis.

This provision raises the question of another concept of regional studies; that is, the focussing of all the disciplines upon a region in an effort to get an integrated picture of the area and its inhabitants in their environment, physical, social, cultural. It is this type of regional study which is demanded by the Army and Navy and by programs for the training of personnel for postwar operation in such work as rehabilitation and reconstruction. In the pre-war period there had been some experiment, notably at the Universities of Michigan and California, in the regional-group major for concentration at the undergraduate level, though the programs had hardly passed the experimental stage. Regional concentration for undergraduates is certainly as valid for purposes of acquiring an education as is concentration in mathematics or philosophy; we shall see more of it after the war.

It is doubtful whether regional concentration can be fruitfully carried much further than the Bachelor's degree; certainly it cannot go further than the Master's degree. Doctoral specialization should certainly be at the disciplinary level, though it might well be reflected against a regional background. The day of the old-line Sinologist, who knew all that there was to know about China, is over; a man with a doctorate on India would run the risk of being a rather superficial scholar.

THIS facile conclusion, however, does not dispose of the problem of what is to be done about presenting regional studies in the small liberal-arts college. In a university whose departments of political science, economics, history, and similar departments embrace staffs of twenty-five or more scholars, it is not too difficult to insist that the major regions be represented by specialists. With such scholars in all departments, integration of a regional program for undergraduates is not too difficult. In the smaller colleges, however, where such departments comprise only two or three persons, this regional insistence is impossible, and it is not easy to see how instruction on a regional basis is to be presented unless we can develop a type of scholar who combines breadth of knowledge over a wide area. This is one of our problems for which no solution is yet proposed.

In this type of study the Germans have moved somewhat farther forward than have we. They have created a discipline which is known as *Nationenwissenschaft*, which includes two semesters' study of the language and script in question sufficient to give the student a command of them which will be useful in his further study, then work in the history and culture of the peoples. *Nationenwissenschaft* differs on the one hand from *Auslandkunde* which is a more superficial introduction to another civilization, and on the other from *Sinologie*, *Islamwissenschaft*, and the similar philological regional disciplines.

We must develop something like this *Nationenwissenschaft*, both as a scheme of concentration for the undergraduate and as a body of study which will give the scholar trained in a discipline the linguistic and regional competence which will make possible his concentration of his discipline on that region. Here again the bottleneck is the lack of trained persons, but in addition there is lack of implementation. The tools with which such subjects are to be taught and studied do not exist. Some experimental work with the languages over the past two years has resulted in some modest progress toward the development of better tools for learning languages, so that the student can now be assured that his time in such study can be efficiently spent. But tools for the regional studies themselves—maps, handbooks, bibliographies, guides, films, and the like—have yet to be created; as a matter of fact, we shall probably not quite know what tools are needed until we have gone through a period of trial and error in presenting instruction.

As an experiment it migh tbe worth

while to make a first essay with the Russian complex. There are three or four American universities already equipped with personnel competent to start a regional program on Russia, including language, history, geography and physical environment, the creative experience of the Russians, the life of the people, and like subjects. If a group of about twenty trained social scientists could be given a period of nine months to a year at any one of them for the purpose of building up their knowledge and competence in Russian (or Slavic) civilization, we should at the same time produce a number of social scientists trained regionally and go through a very valuable experience in developing a regional-studies program for other levels of study.

Intelligent development in regional studies demands the training of native scholars in the usual disciplines, the provision of regional competence to trained American social and natural scientists, the development of teachers for undergraduate programs of regional studies, and the creation of implementation. There is no reason why these should not all proceed at the same time.

Toward Scientific Humanism

By MORRIS GORAN

A Devotion to All Mankind and the Scientific World View

SHORTLY before a well publicized organization meeting of the American Association of Scientific Workers, a prospective member based his reason for remaining away from the group on the charge, "They're communists—with the title of 'worker' in their name." The seriousness of the accusation lies not so much in its untruth as in the fact that it is indicative of the difficulty scientists face in becoming humanistic scientists. The condemnation implied in the term *communist* is not the real obstacle. That label, after all, was to be expected since the Association was formed during the popular-front days when Communists were organizing collective-security movements. The serious and appalling barrier to a synthesis of science and humanism is the inability of the prospective member and others like him to recognize that the aims of the society listed in the announcement of the meeting are the enlightened objectives for all mankind, no mere manifesto of a political segment. No intelligent individual, especially a highly trained scientist who is supposedly an advanced thinker, can fail to support them, even though he is carefully alert to the possibility of subversive activity in their name.

When scientists who have been advancing science through the American Association for the Advancement of Science do not wish to advance scientists as well as science, they are probably not interested in furthering the well-being of other men and women. Enmeshed in minute specialties, secreted scientific workers are developing narrow viewpoints rather than broad ones, frustrated personalities rather than well-rounded ones, provincial ignorance rather than cosmopolitan intelligence.

Yet if the lamp of progress through science appears dim, the complementary light of the social scientist and philosopher is even dimmer, its adherents professing an amazing ignorance of science, gesticulating frantically at the appearance of every new tyranny, and accomplishing little since the rebirth of learning.

Some have acknowledged a debt to science and have urged wider adoption of its methods and conclusions. John Dewey has said the future of mankind lies in the widening spread and deepening hold of science. Sigmund Freud has likewise advised that the hope for mankind lies in scientific method. A rational survey of any account of world history, H. G. Wells's or Cambridge's, leads to the same

conclusion. Society has been subdued into acquiescence, acceptance, and satisfaction by a corrupt clergy; exploited, sweated, and discarded by profiteering bankers and industrialists; entertained, robbed, and mismanaged by patronizing politicians. The bankruptcy is all the more tragic since the new generation does not relish the job of receiver. The young people of our day, for whom history has recorded the names of leaders who have failed—tribal chieftains, generals, conquerors, popes, feudal lords, bankers, industrialists, and politicians—cannot happily have faith in their world to come, even after its temporary purification by the violent emetic of total war. They view with trepidation its possible control by leaders who have already failed in planning and administration.

The young, too, respect science, knowing how the industrial revolution made possible by science and technology was responsible for the bit of freedom attained by the bourgeoisie and the masses, how the laboratory pours out achievements, how its method of approach is efficient and successful. They, with scientists and the countless others whose beliefs stem either from inculcated reverence or from acquired information, stand with John Dewey and Sigmund Freud.

AS TEACHERS transmit more and more of their respect for science to their students, a demand for scientists to take the helm in government will become popular and powerful. To many, the concept of science piloting the ship of state means replacing present-day democratic directors and totalitarian despots by scientifically trained men with no experience in, and no inclination nor training for government service. Only one modern nation has ever tried this plan, though only on a small scale, and the results were not outstanding. In France, nineteenth-century chemist Berthelot was not an extraordinary foreign minister; nor was Marquis LaPlace valuable in Napoleon's cabinet; nor did Joliot-Curie make noteworthy contributions to the popular front government. An entire administration composed of scientists would probably be extraordinary only in the comic and blundering sense—with atom-smashers aiming a cyclotron at an elusive bond issue, chemists devising means to process garbage, and geneticists demanding gene-patterns for all citizens.

The difficulty lies in finding a group of scientists interested enough in political activity to leave their more absorbing work in the laboratory. Even assuming that such hybrids may sometime exist, a further predicament is the possibility of their reverting to the usual political form. They may come to believe that straight thinking and the scientific attitude are inept and useless for problems usually solved by chicanery, fraud, patronizing, flattery, flippancy, and graft. Hence, if scientists turned statesmen are to resist the temptations of political expediency, they must be practical idealists—no less unattainable than the philosopher-kings postulated by the sages.

Scientists interested in politics and economics can be found in America among the members of the American

Association of Scientific Workers and with Robert Millikan among conservative Republicans. In England, as in America, their viewpoints diverge and vary, and they are likely to adhere to commonly accepted opinions and ready-made prejudices at one extreme or the other. Because they are scientists is no reason why theirs should be a different, more enlightened, more liberal stand than that of other men. Because they are scientists is no reason why they should be considered more noble, magnanimous, honorable, and kind than other men at their entrance into the realm of active politics. On the contrary, a cursory acquaintance with departmental jealousies in schools and colleges, the battles for priority in discovery, and the minor slander in early scientific publications reveal how petty the men of science can be. They are often upright and good when dealing with the inanimate in their own field, but it is yet to be demonstrated that they can carry the attitude into social affairs.

Nevertheless, when a demand for better government is made, the citizenry will turn to the scientists. The past performance of the laboratory in the natural sciences and the failure of all other solutions leave no alternative.

Today's laboratory workers will not take, do not want political power—not as scientists, at any rate. Both the American Association of Scientific Workers and its older English counterpart believe in political action as citizens, but not as scientists. And as citizens they will make ordinary politicians.

If power is thrust upon an unwilling laboratory, the resulting inefficiency will be enough to produce frenzy in individuals with sturdy social consciences. The latter are primarily the ones to transform the scientist into a humanistic scientist, to inspire the laboratory worker to accept responsibility for safeguarding and advancing his achievements and method.

THE humanistic scientist is a scientific humanist approaching the problems of mankind with a laboratory point of view and a human understanding. The necessity for developing such individuals is as urgent as persuading the humanist to learn more science. When scientific humanism is promulgated by these two seemingly divergent personalities, the humanist and the scientist, its acceptance will become more widespread.

The humanistic scientist will go one step further than chemist Fritz Haber who claimed that the scientist belongs to mankind during times of peace and his fatherland during times of war. He will belong to mankind at all times, serving human values, eternally vigilant for transgressions, and policing society against tyranny, intolerance, and despotism. The humanistic scientist, realizing his control over all forms of energy, with his friends the technician and the engineer, can be an effective policeman. The threat of one moment's refusal by the scientists of the world to do the bidding of tyrants would forever ensure peaceful solutions of world problems.

Directing and controlling the use and flow of energy, the scientist, engineer, and technician form the

most powerful group in the world. Whether they will use this power to further the engineer-dictatorship of technocracy or scientific humanism depends to a large extent upon the influence of humanists who must prod the laboratory for popular and extensive accounts of its method: not the Baconian idea of fact collecting, classifying, and generalizing, but the technique of idea testing, of hypothesis forming, of searching for cause and consequence, of isolating causative factors toward predicting and controlling their effects. Too, they must learn the objective, detached, aloof attitude necessary for impartial and unselfish decisions.

Together the scientific humanist and the humanistic scientist must further their international viewpoint. Together they can look forward to substituting for national, class, and race loyalty a devotion to all mankind and the scientific world view. Hitler's distorted ideal, that "one should educate the German people from childhood on, to the exclusive acknowledgment of the right of their own nationality, and one should not poison our children's hearts with the curse of our 'objectivity'" will be forever denied. Children will see the world as it is described by science, changing their viewpoint in later life as often as the laboratory finds new evidence. Now the fundamental concepts involve a minor planet in a third-rate solar system in one of innumerable galaxies: the common descent of all mankind from lower forms of life, the steady advance in freedom, length of life, and leisure activity for the average man.

Science has affected, and, guided by scientific humanism, will continue to affect the average man. The new impact of science upon the citizen will result in individual as well as group satisfactions. The new experiences which are sought by living people will be found in discovery and research through the way of science, though not necessarily in the natural sciences. With every citizen a specialist will come his recognition as a human being of worth and importance. But whether recognition will be sought in a more human and just society remains to be seen. And as scientific achievements become plentiful in an era of abundance, individual economic security will be assured.

· *With the* · Technicians ·

Study of Contemporary Russian Civilization[1]

It seems fairly certain that in the future America will have to live in much closer contact with the nations of the world than it ever did in the past. Not only will political and economic necessity bring this about, but the amazing advances in modern communication and travel will make distant countries our next door neighbors. We cannot talk intelligently about the century of the common man without knowing how the common man lives in countries other than America. We cannot in all conscience demand the four freedoms for ourselves without knowing how the enjoyment of them here will affect the justifiable demand for the four freedoms among the other peoples of the globe. The whole future of the peace is connected with the ability of our people to become citizens of the world, as well as citizens of America, and this can come about only through a type of education that will provide us with a sympathetic understanding of the political and social problems, and the national aspirations of the nations with which we must live.

To a greater extent than ever before our education must become international. Emphasis should be placed upon a knowledge of the total civilizations of foreign countries and our relations to them, and not merely upon their languages and literatures. Although a historical knowledge of the past is vital, it should play only a proportionate part in a thorough training in contemporary civilization. It is true that the study of human values in intellectual discipline has commonly been centered in civilization's accomplishments in the past, but human values may be studied with equal validity in the accomplishments of the present. No doubt our secondary schools will feel the impact of this new demand in some measure, but it will be in the liberal-arts colleges that such training will be most in order. This interest in international education will help to revitalize the liberal arts and will infuse in them that increment of utility which has been lacking in a system that has failed to adjust itself fully to the educational needs of our modern civilization.

After careful preparation, Cornell University has decided to embark upon an experimental comprehensive study of a contemporary civilization. For its initial project the university has selected the civilization of Soviet Russia, a country on which intelligent American opinion needs more information. Owing to war conditions, it was thought advisable to make this study an intensive one. The project ran for sixteen weeks (July 5–October

[1]Reported by Ernest J. Simmons, Director, Intensive Study of Contemporary Russian Civilization, Cornell University.

23, 1943) a full college semester, and all the important aspects of Soviet civilization were studied. There were five main courses: The History of Russia; Soviet Government and International Relations; Soviet Economy, Its Theory and Practice; Soviet Social Institutions and Life; and Soviet Literature.

The five main courses were supplemented by thirteen weekly workshop seminars on specialized subjects: The Russian People, Soviet Education, Soviet Music, Soviet Medicine and Health, Soviet Jurisprudence, Soviet Military and Naval History, Soviet Scientific Achievements, Soviet Theater and Cinema, Soviet Agriculture, Russian Art and Architecture in the Soviet Union, The Soviet Union and the Far East, Soviet Russia and the Peace.

Each one of these workshops was given by an authority in the field, and the method of instruction was designed to promote as much discussion as possible. Further, through the cooperation of the American Film Center, a series of 29 Soviet documentary films and educational shorts that have direct bearing on the subjects taught were used, largely in connection with the workshop seminars. And a series of relevant photographic exhibitions was mounted.

There were seventeen men on the staff of the Intensive Study of Contemporary Russian Civilization. Every one of them is a recognized authority in the subject that he taught. All of them have had extensive firsthand contact with the Soviet Union, and with one or two exceptions they all know the Russian language. Among them were such distinguished scholars in the field as Sir Bernard Pares, formerly director of the school of Slavonic Studies in London University; Ales Hrdlicka, of the Smithsonian Institution; Henry E. Sigerist, of Johns Hopkins; and Samuel H. Cross of Harvard.

The project had several well-defined purposes. The immediate one, of course, was to provide the students with a comprehensive and objective knowledge of the civilization of Soviet Russia so that they may better understand the present and future problems that may arise in that country's relations with America and other nations. There was the further purpose that the success of this project might encourage other universities, not only in this country, but abroad, to develop similar educational studies of international understanding and co-operation. Such studies ought to be made of England, China, and other countries. A study of contemporary American civilization would be a salutary step for some English and Russian universities to undertake. For we must get rid of the political isolationism that is a positive reflection of our intellectual isolationism. The intolerance often manifested toward foreign peoples is born of ignorance of their way of life. Nations desperately need to know the whole truth about each other, for the truth will set them free from the deeply rooted prejudices and national antagonisms which lead to wars. Such truth can come only through education, conceived on an international basis and dedicated to the high purpose of promoting peace among the nations of the world.

Secretarial Science in Colleges and Universities[2]

A questionnaire to summarize the status of secretarial courses in colleges of liberal arts and sciences was sent by the Secretarial Department of Mundelein College to the registrars of 148 institutions of higher education. The institutions included in this study were selected from 34 different states located in all four geographic divisions of the country and vary in size from small colleges to universities. They are all of recognized status in the field of higher education. Twenty-two are state universities; 79 are liberal-arts colleges; 110 are members of the North Central Association; and 23 are Catholic institutions. The study is weighted with Illinois colleges because of the special interest of the author. Twenty-three are located in Illinois.

Of the 148 questionnaires sent out, 107 replies were received. Answers are summarized[3] as follows:

1. Do you have a department of secretarial science?
   Yes . . . . . 50 per cent
2. Do you give credit for shorthand?
   Yes . . . . . 54 per cent
3. How much credit do you permit for shorthand?
   Answers ranged from 2 to 14 semester-hours
   Median . . . 8.43 semester-hours
4. Do you give credit for typewriting?
   Yes . . . . . 49 per cent
5. How much credit do you permit for typewriting?
   Answers ranged from 1 to 9 semester-hours
   Median . . . 5.02 semester-hours
6. How many clock hours (50 minutes) a week are given to the teaching of shorthand?
   Answers ranged from 3 to 10 hours
   Median . . . 4.69 hours
7. How many clock hours (50 minutes) a week are given to the teaching of typewriting?
   Answers ranged from 2 to 6 hours
   Median . . . 4.23 semester-hours
8. What is the maximum number of credit hours permitted in secretarial science toward an A.B. degree?
   Answers ranged from 3 to 32 semester-hours
   Median . . . 14.2 semester-hours
9. What is the maximum number of credit hours permitted in secretarial science toward a B.S. degree?
   Answers ranged from 6 to 40 semester-hours
   Median . . . 19.75 semester-hours
10. In your opinion should secretarial science be offered in a liberal-arts college?
    Yes . . . . . 54 per cent
11. Should it be given college credit?
    Yes . . . . . 54 per cent
12. Would you like a summary of the results of this study?
    Yes . . . . . 78 per cent

[2]Reported by Sister Mary Gregoria, B.V.M., Mundelein College.

[3]A mimeographed copy of the complete tabulation of the data of the questionnaire will be sent to any reader by the author upon request.

The Effect of Year-Round Attendance on Students[4]

One common means of accelerating the education of students has been to urge or require their attendance at school during the entire year. What effect does such acceleration have upon the personal development of the individual student? Does it tend to increase the number of problems he has? Does it have any other good effect than time saving?

A course at Ohio State University which emphasizes intensive analysis and treatment of students' problems (Psychology of Effective Study and of Individual Adjustment) afforded an opportunity to obtain preliminary data on this problem.[5] The students enrolling in this course tend to be the misfits of academic society—the students most apt to be bothered by the additional strain of continuous attendance. The students meet daily for 11 weeks in small laboratory sections. In addition to daily contacts with the instructor each student has frequent

[4]Reported by Francis P. Robinson, Ohio State University.

[5]The project is one of a series sponsored by the Acceleration Research Study of the Bureau of Educational Research, Ohio State University.

conferences with another counselor. The extensive diagnostic program and interviews provide an unusually thorough acquaintance with each student's problems, and the rapport developed leads to frank answers.

Of the 64 students studied 28 were in school the year round and 36 were absent during the summer session. The two groups were equal as to the ratio of men to women and as to the percentage living at home while attending the University. This and other studies, however, indicate that those who chose voluntarily to attend the year round tend to be somewhat more intelligent than those who do not attend school during the summer. Other evidence also indicates that such voluntary attenders tend to be more sensitive to seeking solutions to their problems. Such personality differences must be taken into account in making any comparative study of these two groups. In the opinion of the writer the present study does this.

The data were obtained near the end of the fall quarter when it was thought that good rapport had been obtained, and when the students had had at least 9 weeks of attendance during the autumn quarter with which to compare their previous school experience. Each counselor was provided with an interview outline, but was urged to proceed in an informal manner in order to obtain the highest rapport. The students were asked the reason they attended or did not attend the University during the summer quarter and what specifically they had gained or lost. They were also asked to judge whether, knowing as much as they did at the time of the interview, they would attend the summer session if they could live again the previous summer. The counselors made independent judgments as to the gains and losses which resulted from each student's handling of his summer program; they also made an over-all judgment stating whether in their opinion the student would have been wiser to have attended or not attended the previous summer. As a means of judging the relative importance of acceleration as a source of difficulties, the counselors were asked to rank among twelve sources of problems the relative importance of year-round attendance as a cause of students' problems.

In general the analysis indicates that year-round attendance is not a particularly important source of problems: First, the counselors gave year-round attendance a median rating of ninth in importance as a source of problems among the 12 areas. The distribution of these ratings indicates a definite tendency toward a dichotomy, however: either year-round attendance did not seem at all important or certain current problems were definitely associated with it. The nature of these problems will be discussed later. Second, when the students were asked what they would do if they had the summer to live over again, more students favored attending than had actually done so the previous summer. Thus, 44 per cent had attended, but 58 per cent said that they wished they had. Among those who had not attended and who had not wished to were several who had used the summer to gain required experience for college work, or were

out under doctor's orders. It should be noted, however, that the counselors found some problems arising from year-round attendance and a sizable minority of the students even in retrospect would not have liked to attend during the summer. It is important, therefore, that we turn to a qualitative analysis of the gains and losses from attending and not attending as seen by the counselors and by the students themselves.

As might be expected the students were able to think of more gains than losses for their chosen use of the summer. Both groups were equally facile in thus rationalizing their behavior, although there were more nonattenders who were unable to state any gains or losses than there were attenders who were thus stumped. Qualitative differences in the gains and losses listed by the two groups and by their counselors must provide the basis for our analysis. It is significant, however, that the counselors tended to find more reasons for than against the students' actual use of the summer, thus indicating some validity in the students' original decisions.

When the gains enumerated by attending students and their counselors were compared to the losses listed by those not attending the year round, it was noted that the overwhelming emphasis in both gains and losses was upon time or credit to be obtained from attendance, and second in importance was improved adjustment to the campus life.

On the other side of the picture, however, when nonattending students and their counselors' list of gains obtained by not attending were compared to the losses listed by attending students, some differences are seen in the two sets of answers. Those not attending place greatest emphasis upon finances gained and upon work and life experience. Those attending place uppermost the loss of vacation and recreation. Apparently, they do not face so great financial problems, or they are not so aware of them.

On the whole, then, the main drawbacks to year-round attendance seem to be difficulties in finance and loss of work experience. Such results have been obtained from less intensive analyses, but it is important to note here that a more thorough acquaintance with the students does not uncover many instances of bad effects upon personality growth from year-round attendance. If the school can provide a variety of work experiences in connection with its program and take care of certain students' financial problems, most of the difficulties arising from year-round attendance might well be overcome. Even with such assistance, however, it cannot be said that all students would be better off with year-round attendance than with a summer's vacation; some students need this absence from school in order to answer their problems through other means. Other studies of this problem need to be made. Genetic studies should be carried on to measure the effects of acceleration over longer periods and to determine what happens when adolescents meet graduation a year early.

·The·Reporter·

THE University of Pittsburgh is distributing a well illustrated pamphlet entitled *Training to Win* which contains the record of the activities of the University in the second world war. It was prepared by Agnes Lynch Starrett and the photographs were made by Thomas Jarrett.

A GROUP of 135 students from thirty-two states completed the 1943 session of the Summer Radio Institute sponsored jointly by Northwestern University and the National Broadcasting Company. Women preparing to replace men entering the armed forces formed 85 per cent of the student body.

THE American Philosophical Association has appointed a commission of five persons to consider the function of philosophy in liberal education. The work of the commission is subsidized by a grant of $10,000 from the Rockefeller Foundation.

THE School of Library Science of Drexel Institute of Technology announced a two-year in-service course in library science to open in September, 1943. Under the new plan, students will hold half-time paying positions in libraries in Philadelphia and vicinity while taking each year one-half of the basic one-year course in the School of Library Science. A student entering this in-service course must hold a Bachelor's degree from an accredited college or university and give evidence of personal fitness for library work.

FOR the first time, students at Teachers College, Columbia University, last summer received credit for a course in which radio programs were included as a basic source of material. The course Music in General Culture was conducted by Lilla Belle Pitts and had an enrollment of 150.

THE A.L.A. *Glossary of Library Terms*, with a selection of terms in related fields has just been published. It was prepared under the direction of the Committee on Library Terminology of the American Library Association by Elizabeth H. Thompson. Volunteer readers collected approximately 1,000 terms and definitions, while 250 librarians from British Columbia to Florida read a great number of volumes during 1934 to 1936. In 1937 the Carnegie Corporation of New York provided a grant of funds for the preparation of the glossary.

THE Library of the Wisconsin Historical Society now has in its document division more than 25,000 patents seized from the Axis; the file is expected ultimately to number 50,000 patents. This Library is one of the few places outside Washington where such documents are available. At the present time there are about

2,300,000 patents registered in the United States on file in the document division of the library.

THE University of Wisconsin, Department of Zoology, recently collected 30 dissecting sets as a part of the nation-wide campaign to help equip medical kits to donate to coast-guard patrol boats and sub-chasers. The sets have been sent to the New York offices of the medical and surgical relief committee. The salvage drive for surgical instruments at the University was conducted in answer to an urgent appeal by the executive chairman of the committee.

THE study of contaminated wounds now being carried on at the College of Medicine, Wayne University, will be continued throughout the fall as the result of a supplemental agreement with the Federal Office of Scientific Research and Development. The agreement provides the sum of $5,000 for further study of the problem.

WITH the permission of the United States Government, prisoners of war and other internees, both German and Italian, are writing the University of California for information regarding courses they may take. Replies have been sent stating that correspondence courses are available and that university credit can be earned in this manner.

A SERIES of one-week and week-end courses for American soldiers on leave have been organized by British universities. The subjects covered range from the British drama and theater (Bristol University) to British agriculture (Reading University). The courses at Oxford and Cambridge, which are open to Canadian soldiers as well, cover such matters as politics, economics, religion, law, the social sciences, and postwar reconstruction. Edinburgh is specializing in topics relating to Scottish life, culture, and history. Altogether nine universities are participating.

THE sum of $3,000 for new equipment for the laboratories of the Department of Chemistry, Valparaiso University, is the gift of Walter Pitann, of Chicago. The entire sum will be used to purchase equipment for the organic-chemistry laboratory, which will make this laboratory one of the finest of its kind.

THE *American Oxonian*, published at Duke University for the Association of American Rhodes Scholars, carried in a recent issue an announcement of what is considered perhaps the most valuable acquisition received by Oxford University during the past two centuries. This is the gift of Wytham Abbey and the more than 3,000 acres of wooded and cultivated lands which belong to the historic estate near Oxford, England. The estate comes to the university partly by gift of the present owner, Colonel Raymond ffennell (correct spelling), partly by conversion, and partly by purchase on very favorable terms. Colonel ffennell will reside in the manor house until his death, but the greater portion of the lands become available immediately. The acquisi-

tion of the estate is hailed by the University as one of the most important events in its history since the industrial revolution.

UNDER the direction of the Joint Committee on Inter-American Engineering Cooperation, the Division of Engineering and Industrial Research of the National Academy of Science, and the Inter-American Development Commission arrangements have been made for the exchange of up-to-date engineering knowledge among American countries through translating and interchanging technical papers. Articles written in the United States selected for translation into Spanish and Portuguese will be sent to individuals or will be published in journals in Latin America. Similarly, articles written in other American republics will be made available in English for such use in United States. The planning of the three organizations also provides for international collaboration on technical problems, exchange of individual and group visits, and participation in professional meetings.

THE Committee appointed by President Willard of the University of Illinois to consider the University's teacher-training program has recently completed its work. It recommended for teachers an integrated five-year program leading to the Master's degree. Social and community work according to the recommendation should be emphasized, and majors and minors should be replaced by areas of specialization which would include groups of related subjects extending beyond departmental lines. The Committee recommends that entrance upon these curriculums be dependent upon the individual's possession of certain traits and aptitudes which promise success in teaching as well as scholarship achievement above present requirements. A standing committee representing the divisions concerned has been named to carry these recommendations into effect.

A KINDNESS extended to a student more than half a century ago has resulted in a bequest to Cornell University of more than $50,000 from the late Albert D. Gillespie of Brooklyn. The entire sum will be used to set up an endowment fund, from which the income is to provide prizes to students in junior and senior classes in the College of Architecture. Annual income in excess of $800 will go toward purchasing books for the College of Architecture Library.

THE International Relations Board of the American Library Association in "A Memorandum on Opportunities for Government Participation," has recommended the problems of postwar rehabilitation of foreign libraries to the consideration of the United States Government. The Government is asked to promote and co-ordinate postwar rehabilitation by demanding the return of looted materials and assuring facilities for the prompt reopening and rebuilding of libraries. The memorandum recommends that channels for the exchange of ideas with friendly nations be maintained during the war, and be re-established with enemy-controlled countries when hostilities cease. The Government is

asked to provide copyright, postal, and tariff regulations which will stimulate international exchange of cultural materials, to co-operate with private agencies involved in international cultural activities, and to expand the present program for sending American books abroad as cultural emissaries and for maintaining American libraries in foreign countries. Many countries, in the opinion of the Board, will turn to the United States for assistance in the rehabilitation of libraries, and it recommends that the Government arrange as promptly as possible for the interchange of students, librarians, and subject specialists. Since many American libraries have large funds set aside for the purchase of foreign materials, the Government is recommended to encourage a quick survey of their holdings and assist in developing plans for co-operative buying.

THE war has transformed the lives of university students of Great Britain. The only men who are permitted to complete their courses are those studying in medical, scientific, and engineering faculties. Women are allowed to complete courses in arts also, provided they intend to teach or do social-welfare work; otherwise they become liable to conscription with their age groups. Some courses have been shortened, but standards have been maintained. This has been made possible by longer hours, a fourth term in what used to be the summer vacation, and more intensive work on the part of students and staff. No student who fails to pass his examinations at the first sitting is permitted to remain in the university.

Every male student must be a member of a training corps—the University Air Squadron, Sea Cadets, Home Guard, Senior Training Corps, or Civil Defense Service. In several universities the women students have established a voluntary system whereby they undertake to give a certain number of hours a week to national service in canteens, hospitals, crèches, youth clubs, or Citizens' Advice Bureau. At several colleges, women's rifle clubs have been started. Students play a valuable part in Air Raid Precautions services, help care for child evacuées, cultivate land, and do forestry work.

The National Union of Students of England and Wales, which is twenty-one years old this year, is planning a conference next April on The Students' Contribution to Victory.[1]

CORRESPONDENCE courses in both high-school and college subjects are offered by Indiana University to the men and women in the military services stationed in the United States or overseas. The officers are encouraging them to use their spare time for such study. Reduced fees are charged when enrollments are made through the company commander, further reductions are made possible after four months' service through subsidy from the United States Armed Forces Institute. Subjects available under this plan include business, languages, English, mathematics, history, and geography. The University is co-operating with the Institute in developing new courses designed especially for persons in the service.

[1]By Lena Chivers, British Information Services.

·Editorial·Comments·

A Proposed University Veterans' Bureau

THERE is abundant evidence that colleges and universities are aware of the need for planning for postwar education, particularly that phase which has to do with the training of war veterans. For example, in the bulletin entitled *Higher Education and National Defense*, issued on August 16, 1943, the American Council on Education gives an analysis of the replies of 233 colleges and universities to a series of fourteen questions on postwar educational programs for men and women returning from the armed forces. The replies are almost equally divided between publicly and privately controlled institutions. The authors of the bulletin point out that both the character of the replies and the way in which they were formulated indicate the care with which institutions are considering the problem. "In a very considerable number of institutions, the composite reply was the consensus of prolonged discussion of the entire faculty, of the war committees or of a special committee appointed to draw up the reply."

Recently, we have had an opportunity to examine a proposal for dealing with one aspect of this problem, made by a group of persons who have been thinking about postwar planning in one institution. It is so timely that we pass it along as a worth-while contribution to the solution of an urgent problem. In order to understand the proposal, it is necessary to know something of the institution for which it was made. It is a large university with a number of undergraduate four-year colleges and a number of professional colleges which require previous college work for admission. A new student ordinarily is expected to declare the field in which he is interested and then is assigned by the admissions officer to the appropriate college.

The proposal points out that after the war and to some extent before its close many persons will come to the campus for study after service in the armed forces or industry. They will fall roughly into two groups: those who know what they want to do in college, and those who want the benefit of college experience but are uncertain as to just the form it should take. The second group will include young people who entered the armed services or industry before completing their high-school courses; former college students who need help in selecting more appropriate professions than those they had chosen previously; men and women who before the war had settled in an occupation but find it difficult or impossible to go back to the old job, or who for other reasons find adjustment to present civilian life particularly difficult; young people who

have become skilled technicians under various wartime educational programs and who, determined as they may be to develop these skills further, need to relate them to broader problems and conditions of living in the postwar world. All such persons would receive maximum profit from campus experiences only if the institution were prepared to give them proper guidance in utilizing its resources.

FOR the benefit of this heterogeneous group of students, it is proposed that the university create a veterans' bureau to give expert guidance of a professional, educational, cultural, and personal nature. A veteran returning to the university would have the option of declaring his intention to study in a definite area or becoming a student under the supervision of the bureau. If he chose the latter alternative, he would select no college but report to the personnel officer of the bureau, whose special responsibility would be to help him orient himself in the university situation. Under the guidance of this officer, the student might select any course or series of courses he wished. He would be held to no prerequisites but would be required to accept the risk of failure in any course he selected. He would be permitted to decide at the outset to take any course for credit or not as he deemed wise. In any course he would be held to every standard and requirement which other students had to meet.

The bureau student during his first quarter would confer frequently with his bureau adviser and instructors and would be expected to do everything he could to hasten the time when he could withdraw from the bureau into one of the regular colleges. Ordinarily the services of the bureau would be available to a student during his first two quarters only; by the end of that time, he would be required to choose an area of study or withdraw from the university. In exceptional cases students might remain under the jurisdiction of the bureau for a longer period. Whenever the student transferred to a regular college, his personnel folder containing his high-school record, previous college record if any, record of military or industrial experience, together with all scholastic, professional, vocational, and personal data gathered while he was under the jurisdiction of the bureau, would be sent to the appropriate officials of the college.

While the proposal outlined here has not received any official approval and while its specific recommendations are related to conditions in a particular large institution, it seems to us that it should stimulate the thinking of other institutions both large and small, all of which are facing the problem with which it deals.

R. H. E.

Philosophy in General Education

LAST month we commented briefly but enthusiastically on Harvard University's two-year study of future provision for general education in American schools and colleges. Another development of great promise is the creation by the

American Philosophical Association of a Commission on the Function of Philosophy in Liberal Education. This is in line with activities of the Western Division of that Association and other groups, which have been concerned with the same problem in recent years. The Western Division in 1938 authorized the appointment of a special committee on the rôle of philosophy in universities. The work of this committee led to a number of reports on various topics related to the general problem, certain of which were later published as articles in the JOURNAL.

Beginning about December 1, the Commission expects to hold a series of regional meetings throughout the United States for the discussion of the problems with which it is concerned. Invited to the meetings will be not only professed philosophers but specialists in other subject-matter fields as well as nonacademic persons who are interested in philosophy and think it should have a place in the college curriculum. This seems to be an excellent plan; we shall follow the developments with interest.

Most persons who have thought about the subject would agree that philosophy has an important function in liberal education; probably few would deny that it has failed to perform that function as effectively as it should have done. This is probably due to ineffective methodology as well as lack of clear understanding of what the function is. Hence, we hope that the Commission will think of *function* as both noun and verb; that is, that it will study not only the function of philosophy but also procedures through which philosophy can function more effectively.

We are fortunate in being able to publish in this issue the first of a number of articles which bear directly on the problems of the Commission: Mr. Virtue's "Concerning Philosophical and Professorial Clarity." In future issues we shall present contributions by other authors dealing with these problems from other points of view. We commend all of these to the attention of the Commission.

R. H. E.

COMMENTING on the article "Student Government in Collegiate Institutions" by B. H. Peterson in the April number, President Masters of Albright College says:

> I know of no institution, whether on the secondary school or collegiate level, in which students truly govern themselves. It has never reached a stage beyond student participation in government. It is my conviction that the term *student self-government* is a misnomer. The use of the term has given students the wrong concept of responsibility and function too, I am sure. Ultimately, the responsibility for student organization and action must rest with responsible individuals or groups of administrative and faculty personnel.

A Correction—

The index references for the footnotes belonging to Table II on page 424 of this issue are in error. The asterisk should follow the word *index* in the first line, and the dagger should follow the word *workers* in the second line.

J. H. M.

··Reviews··

New and Old

TWENTIETH CENTURY PHILOSOPHY: LIVING SCHOOLS OF THOUGHT, *edited by Dagobert D. Runes.* New York: Philosophical Library, Inc., 1943. 571 pp. $5.00.

This is a collection of twenty-two essays of which nine deal with divisions or departments of philosophical inquiry, while the remainder present the standpoint of some "school" with respect to the problems of philosophy as a whole. A list of contributors which includes the names of Roscoe Pound, Whitehead, Bertrand Russell, Santayana, Dewey, and Montague, is sufficiently impressive; but it would be still more so if these philosophical eminencies were represented by something more than reprints of essays (mostly of minor interest) previously published and even republished. Maritain's paper on The Humanism of St. Thomas Aquinas is new—but very much what a reader of Mr. Maritain's works would have expected it to be. And Tufts' article on Ethics has a certain melancholy interest as one of the last pieces of philosophic writings to be finished before his recent death. (It is also a competent, though unexciting, survey of the problems of ethics and the main lines along which solutions have been sought.)

When we leave the academicians for the younger set, we find a curiously uneven mixture of good and bad. Herbert Fiegl writes a careful and informative study of Logical Empiricism and Everett W. Hall, in the longest essay of the book, Metaphysics, has the lonely distinction of providing a stimulus to genuine philosophical reflection. I shall be surprised if the vaguely defined "student of philosophy" for whom this book is intended, according to the editor's preface, will learn much from Boodin on Philosophy of History, Mackintosh on Theology and Metaphysics, Hoenigswald on Hegelianism, Flewelling on Personalism, or Farber on Phenomenology. The papers on Dialectical Materialism (John Somerville) and Philosophies of China (Wing-tsit Chan) have a scarcity value, but are little better than dehydrated dictionary articles. (If China, why not India?) Some of the remaining articles had better be left in a decent silence, broken only by a pious reference to the difficulty of intellectual activity in wartime. Bibliographies are provided.

The heterogeneity of the contents of this book suggests a lack of editorial planning, which is confirmed by the absence of any adequate provision for political philosophy, logic, or philosophy of language. It may be hoped that difficulties of organization, the wartime preoccupations of editors, or some such other external and transient factors are responsible for the impression with which one is left—not so much of the vitality which the designation "living schools of thought" might be expected to promise—as of moribundity, or, at best, suspended animation.

MAX BLACK
University of Illinois

Interpretations of the Iowa Studies

THE MEANING OF INTELLIGENCE, *by George D. Stoddard.* New York: Macmillan Company, 1943. ix+504 pp. $4.00.

This book is in five parts: The Nature of Intelligence; the Measurement of Intelligence; Growth of Intelligence; Heredity and Environment; Intelligence and Society. It is divided into 16 chapters and subdivided into about 100 subtopics with an appendix and index.

It begins with the definition: "Intelligence is the ability to undertake activities that are characterized by difficulty, com-

plexity, abstractness, economy, adaptiveness, social value, and the emergence of originals, and to maintain such activities under conditions that demand a concentration of energy and resistance to emotional forces."

The first chapter is a philosophical discussion of these "attributes." The second chapter considers the physiological basis. The next four chapters consider all the more common test series from Binet to point scales and factor theories. Chapters VII through XII discuss among other topics mental growth, sex differences, feeble-mindedness, and genius. The next two cover nature and nurture and studies based on the intelligence quotient. The last two are devoted to educational and social implications.

The reader meets numerous surprises—of both kinds. Many conclusions, generalizations, and statements of accepted truths are clearly and forcibly stated in well-chosen words. Other pages arouse the more or less vague feeling that "all is grist that comes to his mill." Still again, there are times when one feels that he is being treated to a bit of sophistry. The data furnished are more easily and naturally interpreted in quite a different way.

Of course there are slips of the pen and lapses of thought; but who can be entirely free of these! When the author says "A child of seven could attain an I.Q. of 150 by passing all tests up through fourteen years" the blunder is obvious. Lapses of thought are not so obvious. For instance, he says: "The Iowa workers . . . feel that, over the years, the Stanford revisions have offered not very reliable measurements of functions not very close to intelligence." His entire discussion of tests leaves one with the definite feeling that they are not very reliable. Yet when he comes to the much discussed Iowa claims that the intelligence quotient can be modified by improving the environment, he accepts without question all the Binet test results (pages 340 *et seq.*). Indeed he goes further. On page 341 he says: "These figures lend validity to the authors' conclusion that 'Differences in educational and social environment produce undeniable differences in intelligence and scholastic achievement as measured by our tests.'" All this in face of the fact that in the immediately preceding chapter he has, with the help of Jennings, settled the nature-nurture problem by the now generally accepted view that they cannot be separated.

Of course these are very small spots on the sun; but they are spots, and they show that the sun is subject to storms. If they do sometimes make the aurora more brilliant, they also interrupt telegraph and radio and may some day cause serious results to our radio-guided war planes.

What the Iowa studies demonstrate—as it seems to the reviewer—is that during the plastic pre-school age, the organism requires more and better stimulation than it frequently gets or than it needs later, just as it requires special food and more careful handling. This, it would seem, is a matter of far more importance than the question of whether a hypothetical intelligence quotient can be changed. Dr. Florence Brown Sherbon has told us that by the time a child is five years old he "should be an independent human being with the habits and attitudes quite firmly established that he will carry through life." Perhaps we have all been wrong in applying the intelligence quotient to pre-school children at all; as well try to apply it to pre-natal life! It is evident that there is still much to be learned about the intelligence quotient and intelligence.

What one misses in the book is a consideration not of the tests but of the testers. Most examiners are careful that the child is comfortable and in a proper state of mind while being tested. Otherwise the results are worthless as a measure of intelligence. Is the state of mind of the examiner any less important? It has been pointed out that there are individuals who are temperamentally unfit to become mental testers. It might equaliy well be shown that most of us are at times in mental conditions

that render our results equally valueless. Someone has said that we have our prejudices always with us. Apparently the only thing we can do about it is to admit our prejudices and allow for them. The poet Horace said that men easily believe what they wish to believe. Today wishful thinking is recognized as the rule—to which there are, fortunately, some exceptions. It would seem that the author has covered every other point. The book is highly documented; over three hundred individuals are quoted or referred to—mostly quoted, some many times and at length.

The author says in his nine-line Preface: "While neither a textbook nor a handbook, it may help workers in psychology, education and related fields who are baffled by the tremendous amount of fragmentary writing and discussion."

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A Controversial Topic

Honorary Degrees: a Survey of Their Use and Abuse, *by Stephen Edward Epler.* Chicago, Illinois: Scott, Foresman and Company, 1943. 224 pp. $3.25.

In this book the history of honorary degrees in America is reviewed and the practice examined critically. Stephen Epler, dean of Men, Southern Oregon College of Education, has investigated contemporary practices in granting honorary degrees at about two hundred colleges and universities. From the group he picked out seven, (California, Columbia, Harvard, Nebraska, North Carolina, Smith, and Wisconsin), for a detailed historical study. In addition, he analyzed the opinion of college presidents, business men, farm and labor leaders, and journalists.

In the United States where the Constitution forbids the granting of titles by the government, the universities and colleges fill the breach by bestowing annually some thirteen hundred honorary degrees, mostly doctorates. Over fifty varieties are given, and since some of these have the same titles as earned degrees, it is often difficult even for those in university circles to know whether an individual's degrees are earned or honorary. The usual honorary degrees are now the LL.D., D.D., Litt.D., and Sc.D.

Four occupational groups receive about two-thirds of the total number of degrees conferred. The clergy leads, with teachers and college professors, college and university presidents, and other educational administrators following in order of the percentage of the degrees received. Of the fields more removed from academic halls, the order is, in decreasing number of degrees awarded, holders of political office, business men, lawyers, physicians, writers, authors, musicians, and artists. Farm and labor leaders although representing the most populous groups in the nation are least honored.

Dean Epler considers the basic advantages and disadvantages of the practice of awarding honorary degrees and whether it should be continued or not. He says:

> It is not suggested that all formal honorifics be eliminated. There can be no doubt that honorifics are worthwhile if they are used to stimulate socially desirable activities. If, however, an award can be obtained by means other than success in the lines of endeavor which the honorific is supposed to stimulate, it tends to become meaningless.
>
> Perhaps the fundamental criticism of honorary degrees is that they tend to be undemocratic. Discrimination in terms of sex, politics, and religion often influence selections. Recipients are chosen by committees seldom qualified to pass on the merits of the candidates. Applicants are not required to conform to standards laid down in advance, as is the case with earned degrees and most prizes and awards (page 205).

Many awards in the past seem to have been given primarily for the institution's own benefits. Mr. Epler diagnoses the maladies of the current system and believes the solution of the problem is to give no such degrees. To colleges which will not accept this recommendation he

offers a less drastic suggestion which is simply, to let college faculties select a few distinguished scholars well in advance, and have accrediting agencies decide who gets honorary degrees, the titles to be distinct from earned degrees. This is a controversial book, an honest and forthright analysis of one of the more questionable phenomena of the intellectual life. It should be read by every college president.

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A Useful Book

DENTAL EDUCATION IN THE UNITED STATES, *by John T. O'Rourke and Leroy M. S. Miner.* Philadelphia, Pennsylvania: W. B. Saunders Company, 1941. xviii+367 pp. $5.00.

The authors of this book are educators and administrators, deans of dentistry at the University of Louisville and Harvard University, respectively. Therefore with keen appreciation of the needs of an exposition of dental education, especially because of recent developments, they have presented the subject in an orderly, clear, and comprehensive way. Changes, ideas advocated and controversies concerned, all these the authors present and discuss, not hesitating to be frank on stands they themselves take.

The book opens with some 40 pages devoted to the evolution of dentistry, through its commercial and preceptorial training to where the pattern of dentistry manifested great technical and mechanical skill, with, however, no consideration of its biological relations. So they state that the "basic and medical sciences, though they were in the curriculum, held but little interest, and from a so-called 'practical' point of view were accorded the low values" (page 41).

The authors then devote considerable attention to the ever changing pattern of the dental curriculum. Throughout can be noted that unshakable specter, the relationship of dentistry to medicine. Herein is their task, to lay the ghost and establish dentistry in its rightful place. After a review of what happened during the past forty years to the dental curriculum, agencies concerned, idealistic experiments, and the like, they state that the "basic courses of the first two years of the dental and medical curriculum should make it possible for a student at the end of his second year to transfer to medicine or dentistry, if he cared to, without loss of time or credit" (page 133). The authors then, after much study and analysis of all phases of general medicine that should be included in the dental course, state that "the basic science courses of the dental curriculum be qualitatively and quantitatively equal to those of the medical curriculum" (page 207).

The rest of the book is devoted to research, its relationship to dental education, graduate and postgraduate education, and the relationship of the dentist to the public; and therein they state, as they are closing, that

> as a profession which finds itself in a world where science is being utilized so largely and so often against the interest of human welfare, the dental profession has the important problem of rapidly translating advances in the sciences into further social benefits, achieved through the prevention, control and treatment of oral diseases . . . and [thus] grow in usefulness as an agency for social good (page 342).

This is a very useful book, not only for students and teachers in dentistry, but in places of vocational guidance and in the university field of general education.

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